

WHAT IS CLAIMED IS:

1. An aromatic dicarboxylic acid composition, essentially consisting of

(a) at least one aromatic dicarboxylic acid, ^{(L68) (L69)}

5 (b) 1-3000 ppm of at least one compound selected from the group consisting of 6-formyl-2-naphthoic acid, 6-methoxycarbonyl-2-naphthoic acid and trimellitic acid ^{(L15) (L21) (L70)}

(c) 1-1000 ppm of at least one alkali metal and

(d) 0-3000 ppm of at least one transition metal.

10 2. The composition of claim 1, which comprises 1-3000 ppm of at least one transition metal.

3. The composition of claim 1, wherein the alkali metal is selected from the group consisting of sodium and potassium.

15 4. The composition of claim 2, wherein the transition metal is selected from the group consisting of cobalt and manganese

5. The composition of claim 1, wherein the alkali metal is present in the form of an alkali metal salt selected from the ^{(L59) (L71)} group consisting of sulfate, carbonate, bicarbonate, nitrate, carboxylate and haloid.

20 6. The composition of claim 2, wherein the transition metal is present in the form of a transition metal salt selected from the group consisting of sulfate, carbonate, ^{Co (L38) (L72)} bicarbonate, nitrate, carboxylate and haloid. ^{Mn (L45) (L73)}

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: J. R. Sadulz Examiner #: 74432 Date: 4/29/03
Art Unit: 1756 Phone Number 30 54835 Serial Number: 091917209
Mail Box and Bldg/Room Location: 403 B35 Results Format Preferred (circle): PAPER DISK E-MAIL
9C03

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc. if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Aromatic dicarboxylic acid composition and LC Polyester resin
Inventors (please provide full names): Kometani, Kichi; Ueda, Kazunori;
Kato, Hiroyuki

Earliest Priority Filing Date: 7/28/2000

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

please search clm 1 w/ stipulation of
claim 2 (ie presence of transition metal)

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Searcher: ED
Searcher Phone #: _____
Searcher Location: _____
Date Searcher Picked Up: _____
Date Completed: 5-1-03
Searcher Prep & Review Time: 5
Clerical Prep Time: _____
Online Time: 145

Type of Search

NA Sequence (#) _____ STN _____
AA Sequence (#) _____ Dialog _____
Structure (#) (3) Questel/Orbit _____
Bibliographic (and) Dr. Link _____
Litigation _____ Lexis/Nexis _____
Fulltext _____ Sequence Systems _____
Patent Family _____ WWW/Internet _____
Other _____ Other (specify) _____

Vendors and cost where applicable

\$ 392.95

=> file reg

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FILE 'REGISTRY' ENTERED AT 12:45:33 ON 01 MAY 2003

E 6-FORMYL-2-NAPHTHOIC ACID/CN
L1 1 SEA "6-FORMYL-2-NAPHTHOIC ACID"/CN
E 6-METHOXYCARBONYL-2-NAPHTHOIC ACID/CN
E 2-NAPHTHOIC ACID, 6-METHOXYCARBONYL-/CN
E C13H10O4
L2 1118 SEA C13H10O4/BI

FILE 'LREGISTRY' ENTERED AT 12:52:46 ON 01 MAY 2003

E NAPHTHALENE/CN
L3 1 SEA NAPHTHALENE/CN
D RSD
L4 1911 SEA 591.49.57/RID

FILE 'REGISTRY' ENTERED AT 12:54:18 ON 01 MAY 2003

L5 376 SEA L2 AND L4
L6 73 SEA L5 NOT PMS/CI
L7 49 SEA L6 AND ?CARBOXYL?/CNS
L8 12 SEA L7 AND ?MONOMETHYL?/CNS
L9 10 SEA L8 NOT 2<NC
E C12H8O3
L10 371 SEA C12H8O3/BI
L11 20 SEA L10 AND ?FORMYL?/CNS
L12 15 SEA L11 AND ?CARBOXYL?/CNS
L13 11 SEA L12 NOT 2<NC
L14 11 SEA L13 NOT PMS/CI
L15 9 SEA L14 NOT ?AZULEN?/CNS
L16 1 SEA L15 AND L1
E TRIMELLITIC ACID/CN
L17 1 SEA "TRIMELLITIC ACID"/CN
D RN
L18 2449 SEA 528-44-9/CRN
L19 334 SEA L18 AND M/ELS
L20 65 SEA L19 NOT 2<NC
L21 66 SEA L17 OR L20
E COBALT SULFATE/CN
L22 1 SEA "COBALT SULFATE"/CN
E COBALT CARBONATE/CN
L23 1 SEA "COBALT CARBONATE"/CN
E COBALT BICARBONATE/CN
E COBALT HYDROGEN CARBONATE/CN
E COHCO3/MF

L24 E COBALT NITRATE/CN
2 SEA "COBALT NITRATE"/CN
E COBALT CARBOXYLATE/CN
L25 87 SEA (CO(L)X)/ELS (L) 2/ELC.SUB
ACT FACIDS/A

L26 STR
L27 STR
L28 STR
L29 STR
L30 SCR 1312 OR 1700
L31 SCR 1943
L32 SCR 1838 OR 1992 OR 2016 OR 2021 OR 2026 OR 1929 OR 2043
L33 SCR 2010
L34 SCR 963
L35 (33474) SEA SSS FUL (L26 OR L27 OR L28 OR L29) AND L30 AND L31
AND L34 NOT (L32 OR L33)
L36 14698 SEA SUB=L35 SSS FUL L26 OR L27

L37 88 SEA L36 AND CO/ELS
L38 179 SEA L22 OR L23 OR L24 OR L25 OR L37
E MANGANESE SULFATE/CN
L39 2 SEA "MANGANESE SULFATE"/CN
E MANGANESE CARBONATE/CN
L40 2 SEA "MANGANESE CARBONATE"/CN
E MANGANESE BICARBONATE/CN
E MANGANESE HYDROGEN CARBONATE/CN
E MANGANESE BICARBONATE/CN
L41 1 SEA "MANGANESE BICARBONATE(1+) "/CN
E MANGANESE NITRATE/CN
L42 1 SEA "MANGANESE NITRATE"/CN
L43 105 SEA (MN(L)X)/ELS (L) 2/ELC.SUB
L44 56 SEA L36 AND MN/ELS
L45 167 SEA L39 OR L40 OR L41 OR L42 OR L43 OR L44
E LITHIUM SULFATE/CN
L46 1 SEA "LITHIUM SULFATE"/CN
E LITHIUM CARBONATE/CN
L47 1 SEA "LITHIUM CARBONATE"/CN
E LITHIUM BICARBONATE/CN
L48 1 SEA "LITHIUM BICARBONATE"/CN
E LITHIUM NITRATE/CN
L49 1 SEA "LITHIUM NITRATE"/CN
L50 1267 SEA A1/PG (L) X/ELS (L) 2/ELC.SUB
E SODIUM SULFATE/CN
L51 1 SEA "SODIUM SULFATE"/CN
E SODIUM CARBONATE/CN
L52 1 SEA "SODIUM CARBONATE"/CN
E SODIUM BICARBONATE/CN
L53 1 SEA "SODIUM BICARBONATE"/CN
L54 1 SEA SODIUM NITRATE/CN
E POTASSIUM SULFATE/CN
L55 1 SEA "POTASSIUM SULFATE"/CN

L56 E POTASSIUM CARBONATE/CN
1 SEA "POTASSIUM CARBONATE"/CN
E POTASSIUM BICARBONATE/CN
L57 1 SEA "POTASSIUM BICARBONATE"/CN
E POTASSIUM NITRATE/CN
L58 1 SEA "POTASSIUM NITRATE"/CN
L59 1279 SEA L46 OR L47 OR L48 OR L49 OR L50 OR L51 OR L52 OR L53
OR L54 OR L55 OR L56 OR L57 OR L58
E 1,2-DIBENZOIC ACID/CN
E PHTHALIC ACID/CN
L60 1 SEA "PHTHALIC ACID"/CN
E 1,3-BENZENEDICARBOXYLIC ACID/CN
L61 1 SEA "1,3-BENZENEDICARBOXYLIC ACID"/CN
E 1,4-BENZENEDICARBOXYLIC ACID/CN
L62 1 SEA "1,4-BENZENEDICARBOXYLIC ACID"/CN
L63 3 SEA L60 OR L61 OR L62
SEL L63 1-3 RN
EDIT E1-E3 /BI /CRN
L64 36674 SEA (100-21-0/CRN OR 121-91-5/CRN OR 88-99-3/CRN)
L65 3404 SEA L64 AND M/ELS
L66 307 SEA L65 NOT 2<NC
L67 229 SEA L66 NOT PMS/CI
L68 232 SEA L63 OR L67

FILE 'HCA' ENTERED AT 13:49:34 ON 01 MAY 2003

L69 24344 SEA L68 OR (AROM# OR AROMATIC#) (2A) (DICARBOXYLIC# OR
DICARBOXYLATE#)
L70 1755 SEA L15 OR L9 OR L21
L71 307350 SEA L59
L72 18235 SEA L38
L73 16065 SEA L45
L74 786 SEA L69 AND L70
L75 26 SEA L74 AND L71
L76 3 SEA L75 AND (L72 OR L73)
E ALKALI METAL/CV
E ALKALI METAL COMPOUNDS/CV
L77 2467 SEA "ALKALI METAL COMPOUNDS"/CV
E TRANSITION METAL COMPOUNDS/CV
L78 6071 SEA "TRANSITION METAL COMPOUNDS"/CV
L79 1 SEA L74 AND L77
L80 2 SEA L74 AND L78
L81 188139 SEA (ALK# OR ALKALI#) (2A)METAL####
L82 165585 SEA TRANSITION? (2A)METAL####
L83 25 SEA L74 AND L81
L84 1 SEA L83 AND L82

FILE 'LCA' ENTERED AT 13:56:18 ON 01 MAY 2003

L85 2397 SEA (MIXT# OR MIXTURE? OR BLEND? OR ADMIX? OR COMMIX? OR
IMMIX? OR INTERMIX? OR COMPOSIT? OR COMPN# OR COMPSN# OR
FORMULAT? OR INTERSPER?) /TI

FILE 'HCA' ENTERED AT 13:57:19 ON 01 MAY 2003

L86 7 SEA (L75 OR L83) AND L85
L87 33662 SEA (ALK# OR ALKALI#) (A) (SULFATE# OR SULPHATE# OR
CARBONATE# OR BICARBONATE# OR NITRATE# OR HALIDE# OR
FLUORIDE# OR CHLORIDE# OR BROMIDE# OR IODIDE#)
L88 7803 SEA TRANSITION? (3A) METAL#### (3A) (SULFATE# OR SULPHATE#
OR CARBONATE# OR BICARBONATE# OR NITRATE# OR HALIDE# OR
FLUORIDE# OR CHLORIDE# OR BROMIDE# OR IODIDE#)
L89 1 SEA L74 AND L87
L90 4 SEA L74 AND (L71 OR L87 OR L77) AND (L72 OR L73 OR L82
OR L78 OR L88)
L91 14 SEA L76 OR L79 OR L80 OR L84 OR L86 OR L89 OR L90
L92 36 SEA (L75 OR L83) NOT L91
L93 0 SEA L92 AND L85
L94 7 SEA L91 AND L85
L95 140336 SEA LC OR L(W)C OR LCD OR L(W)C(W)D OR (LIQ# OR LIQUID?) (
2A) CRYST?
L96 QUE 75/SC, SX
L97 0 SEA L92 AND (L95 OR L96)
L98 0 SEA L91 AND (L95 OR L96)

FILE 'REGISTRY' ENTERED AT 14:07:39 ON 01 MAY 2003

L99 85 SEA L15 OR L9 OR L21
SEL L99 1-85 RN
EDIT E1-E85 /BI /CRN
L100 2467 SEA (104195-27-9/CRN OR 104670-08-8/CRN OR 110509-16-5/CR
E POLYESTER/PCT
L101 167383 SEA POLYESTER/PCT
L102 1785 SEA L100 AND L101
L103 224 SEA L102 AND A1/PG
L104 3 SEA L102 AND (T1 OR T2 OR T3)/PG
L105 0 SEA L103 AND L104

FILE 'HCA' ENTERED AT 14:10:20 ON 01 MAY 2003

L106 3 SEA L104
L107 1355 SEA L102
L108 10 SEA L107 AND (L71 OR L87 OR L77)
L109 4 SEA L108 AND L85
L110 1 SEA L108 AND (L95 OR L96)
L111 1 SEA L108 AND (L72 OR L73 OR L82 OR L88)
L112 2 SEA L107 AND (L72 OR L73 OR L82 OR L88)
L113 1 SEA L112 AND (L85 OR L95 OR L96)
L114 28 SEA L106 OR L108 OR L109 OR L110 OR L111 OR L112 OR L113
OR L91
L115 36 SEA L92 NOT L114

=> file hca

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=> d 1114 1-28 cbib abs hitstr hitind

L114 ANSWER 1 OF 28 HCA COPYRIGHT 2003 ACS

138:74634 Polytrimethylene terephthalate polyesters with good weather resistance useful for fibers. Tsukamoto, Ryoji (Teijin Limited, Japan). PCT Int. Appl. WO 2003004548 A1 20030116, 32 pp.

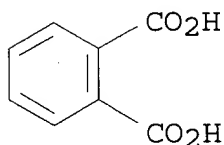
DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (Japanese). CODEN: PIXXD2. APPLICATION: WO 2002-JP6840 20020705. PRIORITY: JP 2001-204474 20010705; JP 2002-25212 20020201; JP 2002-58513 20020305.

AB The present invention relates to a polytrimethylene terephthalate polyester which is composed mainly of trimethylene terephthalate repeating units, contains at least one compd. selected from the group consisting of alkali metal compds., alk. earth metal compds. and manganese compds. in an amt. of 10 to 150 ppm in terms of metal element(s), and satisfies the relationship $0 < \frac{P}{M} < 1$, wherein P is the molar amt. of phosphorus contained in the polyester; and M is the total molar amt. of alkali metals, alk. earth metals and manganese contained therein. Thus, di-Me terephthalate 100, trimethylene glycol 70.5, manganese acetate tetrahydrate 0.316 parts were heated at 140-210.degree., 0.0526 parts tetrabutoxytitanium was added and heated at 210-265.degree. while reducing pressure to give a polymer with intrinsic viscosity 0.75, dipropylene glycol content 0.23%, cyclic dimer content 2.0%, and b value after crystn. 6.8, which was spun and stretched to give fibers with good mech. properties. A fabric obtained from the resulting fibers showed good yellowing resistance against light.

IT 88-99-3, Phthalic acid, uses 528-44-9, Trimellitic acid (polymn. catalyst component with Ti compd.; prepn. of polytrimethylene terephthalate polyester fibers with good weather resistance)

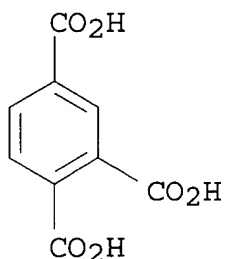
RN 88-99-3 HCA

CN 1,2-Benzenedicarboxylic acid (9CI) (CA INDEX NAME)



RN 528-44-9 HCA

CN 1,2,4-Benzenetricarboxylic acid (8CI, 9CI) (CA INDEX NAME)



IT 7773-01-5, Manganese chloride
(transesterification catalyst; prepn. of polytrimethylene
terephthalate polyester fibers with good weather resistance)

RN 7773-01-5 HCA

CN Manganese chloride (MnCl₂) (8CI, 9CI) (CA INDEX NAME)

Cl-Mn-Cl

IC ICM C08G063-85

CC 40-2 (Textiles and Fibers)
Section cross-reference(s): 35

IT **Alkali metal compounds**

Alkaline earth compounds

(transesterification catalysts; prepn. of polytrimethylene
terephthalate polyester fibers with good weather resistance)

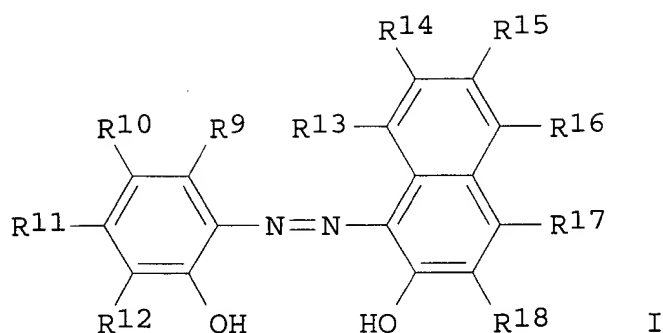
IT 85-44-9, Phthalic anhydride 88-99-3, Phthalic acid, uses
89-05-4, Pyromellitic acid 89-32-7, Pyromellitic anhydride
528-44-9, Trimellitic acid 552-30-7, Trimellitic anhydride
569-51-7, Hemimellitic acid 1571-33-1, Phenylphosphonic acid
1779-48-2, Phenylphosphinic acid 3786-39-8, Hemimellitic anhydride
(polymn. catalyst component with Ti compd.; prepn. of
polytrimethylene terephthalate polyester fibers with good weather
resistance)

IT 62-54-4, Calcium acetate 71-48-7, Cobalt acetate 127-08-2,
Potassium acetate 127-09-3, Sodium acetate 142-72-3, Magnesium
acetate 546-89-4, Lithium acetate 563-67-7, Rubidium acetate
638-38-0, Manganese acetate 7773-01-5, Manganese chloride
17375-29-0, Manganese benzoate
(transesterification catalyst; prepn. of polytrimethylene
terephthalate polyester fibers with good weather resistance)

L114 ANSWER 2 OF 28 HCA COPYRIGHT 2003 ACS

136:254527 Low temperature fixing, hot offset-resistant toner for
electrophotography, electrography, and ink jet printing. Karaki,
Yuki; Kasuya, Takashige; Yusa, Hiroshi; Ogawa, Yoshihiro; Tanigawa,
Hirohide (Canon Inc., Japan). Jpn. Kokai Tokkyo Koho JP 2002082481
A2 20020322, 28 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP
2000-269630 20000906.

GI



AB The title toner comprises a binder, pigment, wax, and org. metal compd., wherein the binder includes a hybrid polymer comprised of a vinyl polymer unit and a polyester unit, and the org. metal compd. is an azo-iron compd. including a monoazo unit of I (R9-18 = H, halo, alkyl). The toner shows excellent properties like developability, image durability, etc.

IT **403983-10-8P**, Propoxylated bisphenol A-ethoxylated bisphenol A-terephthalic acid-trimellitic acid-fumaric acid-styrene-2-ethylhexyl acrylate copolymer
(hybrid polymer binder in low temp. fixing, hot offset-resistant toner suitable for electrophotog., electrog., and ink jet printing)

RN 403983-10-8 HCA

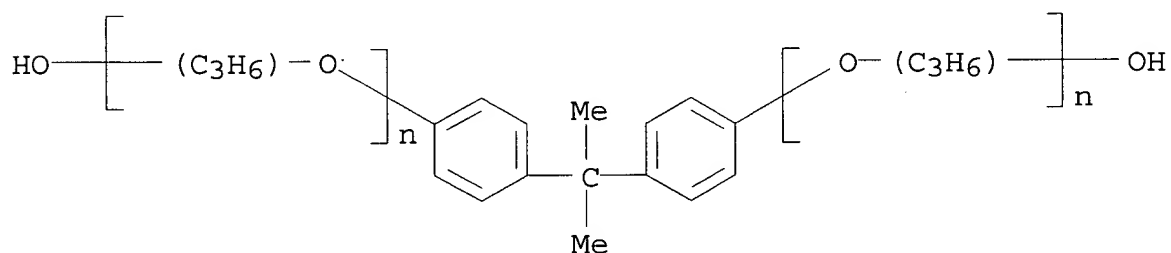
CN 1,2,4-Benzenetricarboxylic acid, polymer with 1,4-benzenedicarboxylic acid, (2E)-2-butenedioic acid, ethenylbenzene, 2-ethylhexyl 2-propenoate, .alpha.,.alpha.'-[(1-methylethylidene)di-4,1-phenylene]bis[.omega.-hydroxypoly(oxy-1,2-ethanediyl)] and .alpha.,.alpha.'-[(1-methylethylidene)di-4,1-phenylene]bis[.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)]] (9CI) (CA INDEX NAME)

CM 1

CRN 37353-75-6

CMF (C3 H6 O)_n (C3 H6 O)_n C15 H16 O2

CCI IDS, PMS

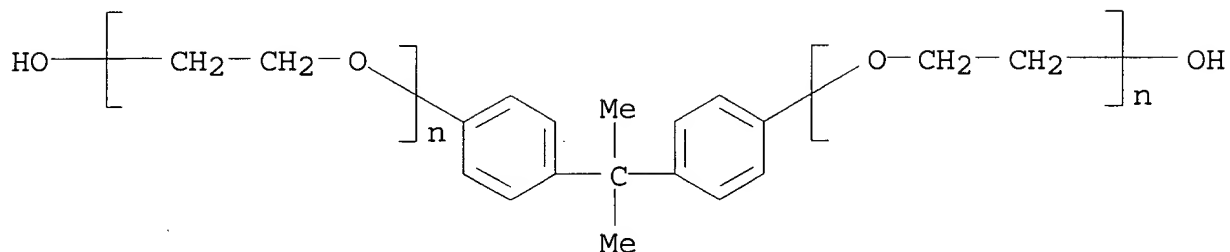


CM 2

CRN 32492-61-8

CMF (C2 H4 O)_n (C2 H4 O)_n C15 H16 O2

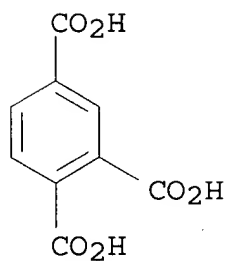
CCI PMS



CM 3

CRN 528-44-9

CMF C9 H6 O6

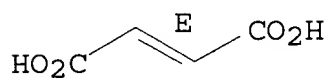


CM 4

CRN 110-17-8

CMF C4 H4 O4

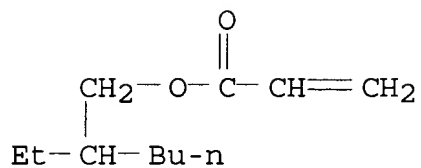
Double bond geometry as shown.



CM 5

CRN 103-11-7

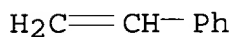
CMF C11 H20 O2



CM 6

CRN 100-42-5

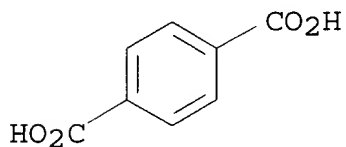
CMF C8 H8



CM 7

CRN 100-21-0

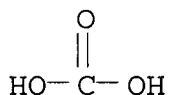
CMF C8 H6 O4



IT 497-19-8, Sodium carbonate, reactions
 (prepn. of monoazo ion compd. for low temp. fixing, hot
 offset-resistant toner suitable for electrophotog., electrog.,
 and ink jet printing)

RN 497-19-8 HCA

CN Carbonic acid disodium salt (8CI, 9CI) (CA INDEX NAME)



2 Na

IC ICM G03G009-087
 ICS G03G009-083; G03G009-097

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and
 Other Reprographic Processes)

IT 270564-18-6P, Propoxylated bisphenol A-ethoxylated bisphenol

A-terephthalic acid-fumaric acid-styrene-2-ethylhexyl acrylate copolymer **403983-10-8P**, Propoxylated bisphenol A-ethoxylated bisphenol A-terephthalic acid-trimellitic acid-fumaric acid-styrene-2-ethylhexyl acrylate copolymer (hybrid polymer binder in low temp. fixing, hot offset-resistant toner suitable for electrophotog., electrog., and ink jet printing)

IT 95-84-1, 4-Methyl-2-aminophenol 95-85-2, 4-Chloro-2-aminophenol 135-19-3, 2-Naphthol, reactions **497-19-8**, Sodium carbonate, reactions 1199-46-8, 4-tert-Butyl-2-aminophenol 7782-63-0, Iron(II) sulfate heptahydrate 337363-56-1 (prepn. of monoazo ion compd. for low temp. fixing, hot offset-resistant toner suitable for electrophotog., electrog., and ink jet printing)

L114 ANSWER 3 OF 28 HCA COPYRIGHT 2003 ACS

136:151965 Aromatic dicarboxylic acid **compositions** and **liquid-crystalline** polyesters prepared therefrom with good mechanical properties. Yonetani, Kiichi; Kato, Hiroyuki; Ueda, Kazunori (Ueno Seiyaku Oyo Kenkyusho K. K., Japan). Jpn. Kokai Tokkyo Koho JP 2002037869 A2 20020206, 11 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-228910 20000728.

AB The compns. contain arom. dicarboxylic acids, 1-3000 ppm (based on the arom. carboxylic acids) .gtoreq.1 compd. chosen from 6-formyl-2-naphthoic acid (I), 6-methoxycarbonyl-2-naphthoic acid, and trimellitic acid, and 1-1000 ppm (as alkali metals) alkali metal compds. Thus, a 58:21:21 monomer mixt. of 4-hydroxybenzoic acid, hydroquinone, 2,6-naphthalenedicarboxylic acid contg. 9 ppm I and 58 ppm (as K) K2SO4 was polymd. to give a **liq.-crystallin** polyester, which was mixed with carbon black and injection-molded to give a test piece with Izod impact strength (ASTM D 256) 439 J/m and good dyeability.

IT **393782-14-4P 393782-15-5P 393782-16-6P 393782-17-7P 393782-18-8P**
(arom. dicarboxylic acid compns. for **liq.-cryst** . polyesters with good mech. properties)

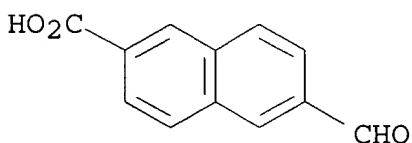
RN 393782-14-4 HCA

CN 2,6-Naphthalenedicarboxylic acid, polymer with 1,4-benzenediol, 6-formyl-2-naphthalenecarboxylic acid and 4-hydroxybenzoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 5084-45-7

CMF C12 H8 O3

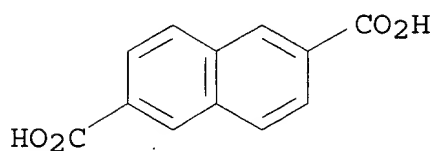


Bad Date

CM 2

CRN 1141-38-4

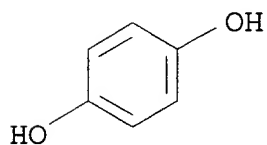
CMF C12 H8 O4



CM 3

CRN 123-31-9

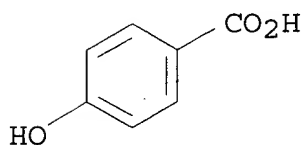
CMF C6 H6 O2



CM 4

CRN 99-96-7

CMF C7 H6 O3



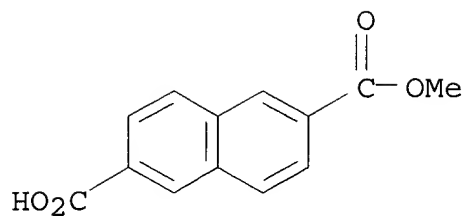
RN 393782-15-5 HCA

CN 2,6-Naphthalenedicarboxylic acid, polymer with 1,4-benzenediol,
4-hydroxybenzoic acid and methyl hydrogen 2,6-
naphthalenedicarboxylate (9CI) (CA INDEX NAME)

CM 1

CRN 7568-08-3

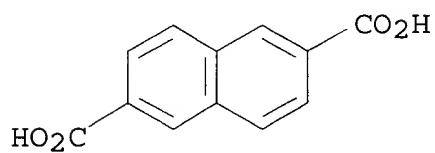
CMF C13 H10 O4



CM 2

CRN 1141-38-4

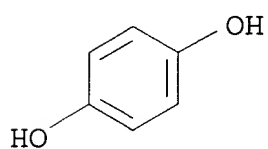
CMF C12 H8 O4



CM 3

CRN 123-31-9

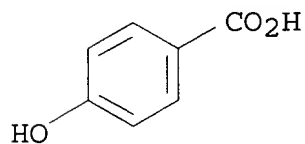
CMF C6 H6 O2



CM 4

CRN 99-96-7

CMF C7 H6 O3



RN 393782-16-6 HCA

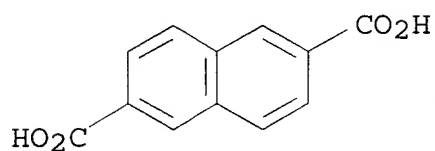
CN 1,2,4-Benzenetricarboxylic acid, polymer with 1,4-benzenediol,
4-hydroxybenzoic acid and 2,6-naphthalenedicarboxylic acid (9CI)

(CA INDEX NAME)

CM 1

CRN 1141-38-4

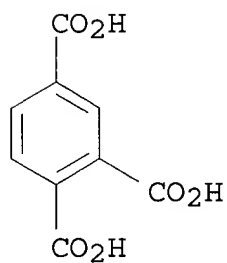
CMF C12 H8 O4



CM 2

CRN 528-44-9

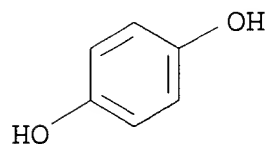
CMF C9 H6 O6



CM 3

CRN 123-31-9

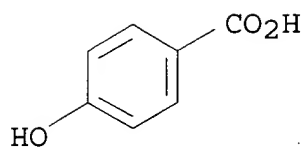
CMF C6 H6 O2



CM 4

CRN 99-96-7

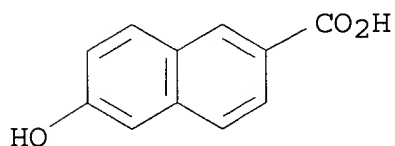
CMF C7 H6 O3



RN 393782-17-7 HCA
CN 1,2,4-Benzenetricarboxylic acid, polymer with 1,4-benzenediol,
6-formyl-2-naphthalenecarboxylic acid, 4-hydroxybenzoic acid,
6-hydroxy-2-naphthalenecarboxylic acid and 2,6-
naphthalenedicarboxylic acid (9CI) (CA INDEX NAME)

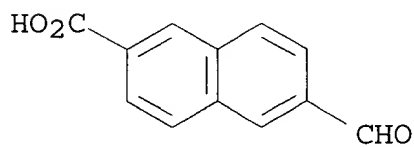
CM 1

CRN 16712-64-4
CMF C11 H8 O3



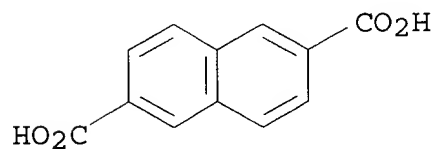
CM 2

CRN 5084-45-7
CMF C12 H8 O3



CM 3

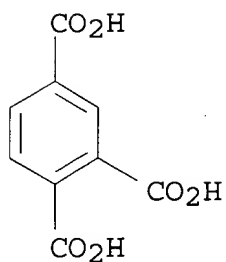
CRN 1141-38-4
CMF C12 H8 O4



CM 4

CRN 528-44-9

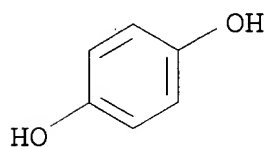
CMF C9 H6 O6



CM 5

CRN 123-31-9

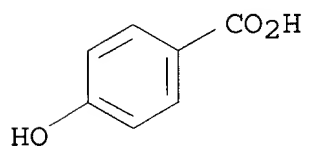
CMF C6 H6 O2



CM 6

CRN 99-96-7

CMF C7 H6 O3



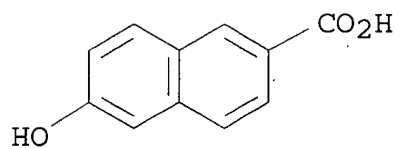
RN 393782-18-8 HCA

CN 2,6-Naphthalenedicarboxylic acid, polymer with 1,4-benzenediol,
6-formyl-2-naphthalenecarboxylic acid, 4-hydroxybenzoic acid and
6-hydroxy-2-naphthalenecarboxylic acid (9CI) (CA INDEX NAME)

CM 1

CRN 16712-64-4

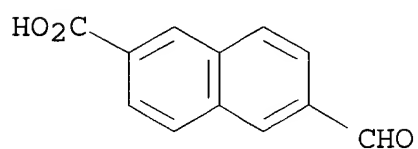
CMF C11 H8 O3



CM 2

CRN 5084-45-7

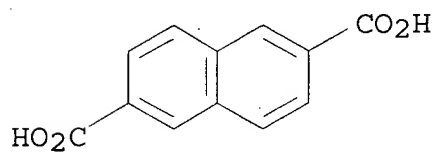
CMF C12 H8 O3



CM 3

CRN 1141-38-4

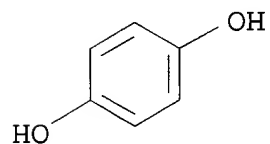
CMF C12 H8 O4



CM 4

CRN 123-31-9

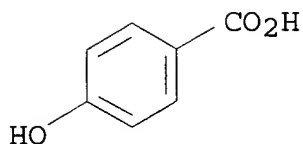
CMF C6 H6 O2



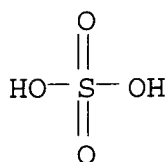
CM 5

CRN 99-96-7

CMF C7 H6 O3



IT 7778-80-5, Potassium sulfate, uses
 (arom. dicarboxylic acid compns. for **liq.-cryst**
 . polyesters with good mech. properties)
 RN 7778-80-5 HCA
 CN Sulfuric acid dipotassium salt (8CI, 9CI) (CA INDEX NAME)



● 2 K

IC ICM C08G063-181
 ICS C08G063-19; C08G063-20; C08G063-60
 CC 37-3 (Plastics Manufacture and Processing)
 Section cross-reference(s): 75
 ST impact resistance dyeability **liq cryst**
 polyester; formyl naphthoic methoxycarbonyl trimellitic acid
 polyester; hydroxybenzoate hydroquinone naphthalenecarboxylate
 formyl naphthoic polyester; alkali metal potassium sulfate polyester
 IT Impact-resistant materials
 (arom. dicarboxylic acid compns. for **liq.-cryst**
 . polyesters with good mech. properties)
 IT **Alkali metal compounds**
Transition metal compounds
 (arom. dicarboxylic acid compns. for **liq.-cryst**
 . polyesters with good mech. properties)
 IT Polyesters, preparation
 (**liq.-cryst.**; arom. dicarboxylic acid compns.
 for **liq.-cryst.** polyesters with good mech.
 properties)
 IT **Liquid crystals**, polymeric
 (polyesters; arom. dicarboxylic acid compns. for **liq.-**
cryst. polyesters with good mech. properties)
 IT 393782-14-4P 393782-15-5P 393782-16-6P
 393782-17-7P 393782-18-8P
 (arom. dicarboxylic acid compns. for **liq.-cryst**
 . polyesters with good mech. properties)
 IT 5931-89-5, Cobalt acetate 7439-96-5D, Manganese, compds.

7440-23-5D, Sodium, compds. 7778-80-5, Potassium sulfate, uses

- (arom. dicarboxylic acid compns. for **liq.-cryst**
- polyesters with good mech. properties)

L114 ANSWER 4 OF 28 HCA COPYRIGHT 2003 ACS

136:137289 On-site-mixing of a lubricating fluid with a **composition** depending on the type of machining and the material to be processed. Occhiena, Giancarlo; Cardona Capdevila, Marta; Musti, Salvatore; Canals Aubanell, Josep; Pardo Pascual, Guillermo; Bonciolini, Alfio (Nueva Fl Iberica, S.A., Spain). Eur. Pat. Appl. EP 1174489 A1 20020123, 19 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 2001-500194 20010719. PRIORITY: ES 2000-1821 20000721.

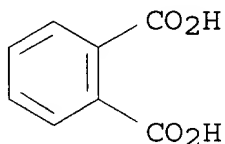
AB A cutting lubricant fluid is a mixt. of four components: A) an oil phase; B) an aq. phase; C) a bactericidal fungicide; and D) high pressure components, each component being divided into sub-groups having a specific compn., that are successively mixed with water at the site of use, the proportions of the components vary in accordance with the type of machining and metal to be machined. The oil phase (group A) contains basic lubricants, dispersant detergents, non-ionic emulsifiers, fatty acids, cosolvents, and high mol. wt. esters. The aq. phase (group B) contains alk. reserve contributors to increase the pH, such as **alkali metal** hydroxides, and amines, various acids as anticorrosives and bacteriostatic properties, and triazole-derivs. as metal passivators.

IT 88-99-3, Phthalic acid, uses 528-44-9, Trimellitic acid

(group B component; on-site-mixing of a lubricating fluid with a compn. depending on the type of machining and the material to be processed)

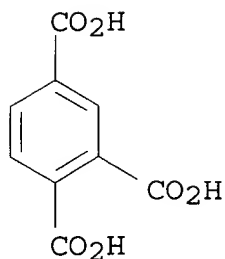
RN 88-99-3 HCA

CN 1,2-Benzenedicarboxylic acid (9CI) (CA INDEX NAME)



RN 528-44-9 HCA

CN 1,2,4-Benzenetricarboxylic acid (8CI, 9CI) (CA INDEX NAME)



- IC ICM C10M177-00
ICS C10M173-00
ICI C10N070-00
CC 51-8 (Fossil Fuels, Derivatives, and Related Products)
IT **Alkali metal** hydroxides
Amines, uses
(group B component, pH-increaser; on-site-mixing of a lubricating fluid with a compn. depending on the type of machining and the material to be processed)
- IT 50-21-5, uses 65-85-0, Benzoic acid, uses **88-99-3**, Phthalic acid, uses 102-71-6, Triethanolamine, uses 109-73-9, Butyl amine, uses 110-15-6D, Succinic acid, alkylated or non-alkylated 111-20-6, Sebacic acid, uses 112-37-8, Undecylic acid 123-99-9, Azelaic acid, uses 141-43-5, Monoethanolamine, uses 149-57-5, Ethyl hexanoic acid 420-05-3, Cyanic acid **528-44-9**, Trimellitic acid 621-82-9, Cinnamic acid, uses 1310-58-3, Potassium hydroxide, uses 7732-18-5, Water, uses 10043-35-3, Boric acid, uses 26896-18-4, Isononanoic acid 88477-37-6, IRGAMET 42 95154-01-1, Irgacor 252 127464-49-7, Reocor 190 203009-18-1, IRGAMET BTA/M 287718-11-0, Anticor c-6 391871-60-6, Hicor EK/C 391872-16-5, Irgacor 42
(group B component; on-site-mixing of a lubricating fluid with a compn. depending on the type of machining and the material to be processed)
- IT 60-00-4D, EDTA, mixt. with VANCIDE 51 87-69-4D, Tartaric acid, mixt. with VANCIDE 51 110-90-7D, derivs. 334-48-5, Decanoic acid 527-07-1, Sodium gluconate 2682-20-4, 2-Methyl-3(2H)-isothiazolone 2809-21-4, Acetodiphosphonic acid 3586-55-8, Methanol, [1,2-Ethanediyyl-bis(oxy)-bis] 3811-73-2, 2-Pyridinethiol, 1-oxide, sodium salt 4719-04-4, 1,3,5 Triazine 1,3,5-(2H,4H,6H triethanol) 7722-88-5, Sodium pyrophosphate 7758-29-4, Sodium tripolyphosphate 8000-96-2D, Vancide 51, mixt. with complexing agents for **alk** earth **metals** 26172-55-4, 5-Chloro-2-methyl-3(2H)-isothiazolone 50813-16-6 195326-06-8, Methanol, [2-(2-methoxyethoxy)ethoxy]- 391872-18-7, POC-CH 2050
(group C component; on-site-mixing of a lubricating fluid with a compn. depending on the type of machining and the material to be processed)

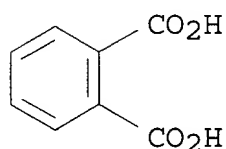
forming of metals. Izawa, Keiji; Aoki, Kenichi (Yushiro Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2001240891 A2 20010904, 4 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-54663 20000229.

AB The lubricating agents contain alkali metal (hydrogen) carbonates and arom. carboxylic acid salts. The agents prevents the metals from seizure, and are environmentally and hygienically benign.

IT 827-27-0, Sodium hydrogen phthalate 877-24-7, Potassium hydrogen phthalate 10197-71-4, Sodium phthalate 13427-80-0, Potassium terephthalate 15596-76-6, Sodium terephthalate 15898-14-3, Potassium isophthalate 25458-19-9, Sodium isophthalate 29801-94-3, Potassium phthalate 51305-33-0, Sodium trimellitate 59471-79-3, Potassium trimellitate (in water-sol. lubricating agents for hot- or warm plastic forming of metals)

RN 827-27-0 HCA

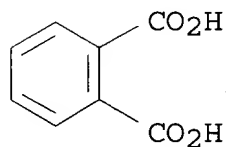
CN 1,2-Benzenedicarboxylic acid, monosodium salt (9CI) (CA INDEX NAME)



Na

RN 877-24-7 HCA

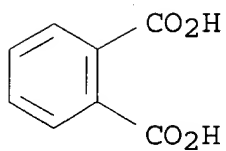
CN 1,2-Benzenedicarboxylic acid, monopotassium salt (9CI) (CA INDEX NAME)



K

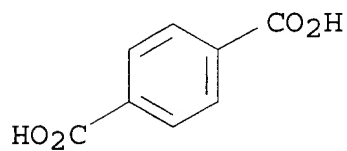
RN 10197-71-4 HCA

CN 1,2-Benzenedicarboxylic acid, sodium salt (9CI) (CA INDEX NAME)



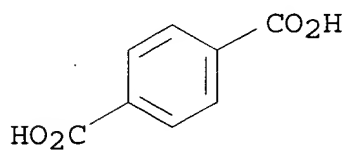
x Na

RN 13427-80-0 HCA
CN 1,4-Benzenedicarboxylic acid, potassium salt (9CI) (CA INDEX NAME)



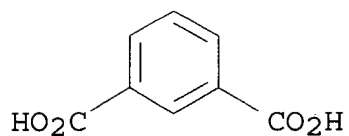
●x K

RN 15596-76-6 HCA
CN 1,4-Benzenedicarboxylic acid, sodium salt (9CI) (CA INDEX NAME)



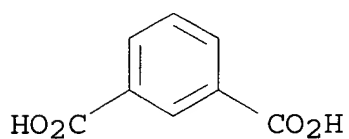
●x Na

RN 15898-14-3 HCA
CN 1,3-Benzenedicarboxylic acid, potassium salt (9CI) (CA INDEX NAME)



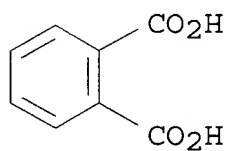
● x K

RN 25458-19-9 HCA
CN 1,3-Benzenedicarboxylic acid, sodium salt (9CI) (CA INDEX NAME)



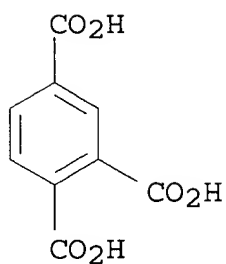
● x Na

RN 29801-94-3 HCA
CN 1,2-Benzenedicarboxylic acid, potassium salt (9CI) (CA INDEX NAME)



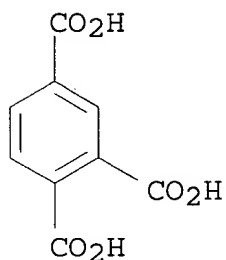
x K

RN 51305-33-0 HCA
CN 1,2,4-Benzenetricarboxylic acid, sodium salt (9CI) (CA INDEX NAME)



⊗x Na

RN 59471-79-3 HCA
 CN 1,2,4-Benzenetricarboxylic acid, potassium salt (9CI) (CA INDEX NAME)



x K

IC ICM C10M173-02
 ICS C10M103-06; C10M105-28; C10M105-30; C10M125-10; C10M129-48;
 C10N010-02; C10N030-06; C10N040-24
 CC 51-8 (Fossil Fuels, Derivatives, and Related Products)
 Section cross-reference(s): 55, 56
 IT **Bicarbonates**
 Carbonates, uses
 (alkali metal; in water-sol. lubricating agents for
 hot- or warm plastic forming of metals)
 IT 144-55-8, Sodium hydrogen carbonate, uses 298-14-6 497-19-8,
 Sodium carbonate, uses 584-08-7, Potassium carbonate
 827-27-0, Sodium hydrogen phthalate 877-24-7,
 Potassium hydrogen phthalate 10197-71-4, Sodium phthalate
 13427-80-0, Potassium terephthalate 15596-76-6,
 Sodium terephthalate 15898-14-3, Potassium isophthalate
 22208-46-4, Potassium pyromellitate 25458-19-9, Sodium
 isophthalate 29726-42-9, Sodium pyromellitate 29801-94-3

, Potassium phthalate 51305-33-0, Sodium trimellitate
59471-79-3, Potassium trimellitate
(in water-sol. lubricating agents for hot- or warm plastic
forming of metals)

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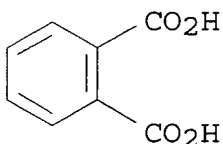
133:75628 Preparation of aromatic carboxylic acids by oxidizing alkyl aromatic hydrocarbons in the presence of Co-Mn-Br and transition metal or lanthanide metal compounds. Jhung, Sung-Hwa; Park, Youn-Seok (Samsung General Chemicals Co., Ltd., S. Korea). PCT Int. Appl. WO (2000037406) A1 20000629, 22 pp. DESIGNATED STATES: W: CN, DE, GB, JP; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1999-KR783 19991217. PRIORITY: KR 1998-57387 19981222.

AB Arom. carboxylic acids (e.g., terephthalic acid) with white color are prep'd. with high selectivity and reactivity by liq.-phase oxidizing alkyl arom. substrates or their partially oxidized intermediates (e.g., p-xylene) with oxygen-enriched gas (e.g., oxygen) in the presence of catalysts contg. Co-Mn-Br and transition metals or lanthanide metals (e.g., cerium acetate) in C1-6 aliph. carboxylic acids (e.g., acetic acid).

IT 88-99-3P, Phthalic acid, preparation 100-21-0P,
Terephthalic acid, preparation 121-91-5P, Isophthalic acid, preparation 528-44-9P, Trimellitic acid
(prepn. of arom. carboxylic acids by oxidizing alkyl arom. hydrocarbons in the presence of Co-Mn-Br and transition metal or lanthanide metal compds.)

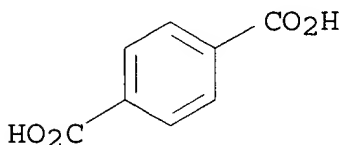
RN 88-99-3 HCA

CN 1,2-Benzenedicarboxylic acid (9CI) (CA INDEX NAME)



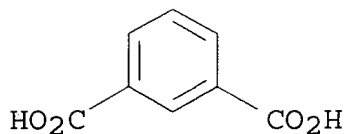
RN 100-21-0 HCA

CN 1,4-Benzenedicarboxylic acid (9CI) (CA INDEX NAME)



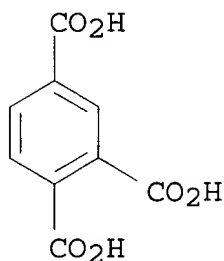
RN 121-91-5 HCA

CN 1,3-Benzenedicarboxylic acid (9CI) (CA INDEX NAME)



RN 528-44-9 HCA

CN 1,2,4-Benzenetricarboxylic acid (8CI, 9CI) (CA INDEX NAME)



IC ICM C07C051-265

CC 45-4 (Industrial Organic Chemicals, Leather, Fats, and Waxes)
Section cross-reference(s): 25

IT Rare earth salts

Transition metal compounds

(prepn. of arom. carboxylic acids by oxidizing alkyl arom. hydrocarbons in the presence of Co-Mn-Br and transition metal or lanthanide metal compds.)

IT 65-85-0P, Benzoic acid, preparation 85-44-9P, Phthalic anhydride
88-99-3P, Phthalic acid, preparation 89-32-7P,
 Pyromellitic dianhydride **100-21-0P**, Terephthalic acid,
 preparation **121-91-5P**, Isophthalic acid, preparation
 517-60-2P, Benzene hexacarboxylic acid **528-44-9P**,
 Trimellitic acid 552-30-7P, Trimellitic anhydride 554-95-0P,
 Trimesic acid 787-70-2P, 4,4'-Biphenyldicarboxylic acid
 1585-40-6P, Benzene pentacarboxylic acid 28604-87-7P, Naphthalene
 dicarboxylic acid
 (prepn. of arom. carboxylic acids by oxidizing alkyl arom. hydrocarbons in the presence of Co-Mn-Br and transition metal or lanthanide metal compds.)

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133:74440 Production of aromatic carboxylic acids by oxidation of alkyl aromatic compounds using an **alkali metal** or alkaline earth metal catalyst. Jung, Sung-Hwa; Park, Youn-Seok; Lee, Ki-Hwa; Chae, Jong-Hyun; Yoo, Jin-Sun (Samsung General Chemicals Co., Ltd., S. Korea). PCT Int. Appl. **WO 2000037407 A1** 20000629, 43 pp. DESIGNATED STATES: W: CN, DE, GB, JP; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1999-KR784 19991217. PRIORITY: KR 1998-57386 19981222; KR 1998-57388 19981222.

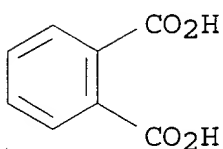
AB Arom. carboxylic acids of significantly improved yield and quality

are prepd. by oxidizing alkyl arom. substrates or their partially oxidized intermediates in a conventional MC-type catalyst system modified to contain an **alkali metal** or **alk. earth metal** in a C1-6 aliph. dicarboxylic acid medium, in a feed gas contg. oxygen and, optionally, carbon dioxide. Carbon dioxide functions as a cooxidant with oxygen, allowing more selective prodn. of carboxylic acid with improved color with much faster, milder reaction conditions than conventional MC-type oxidn. In particular, oxidn. of p-xylene gave terephthalic acid (I) of higher yield and enhanced quality, and oxidn. of o-xylene gave phthalic acid or anhydride. The purity of I or isophthalic acid is improved by the oxidn. of impurities such as 4-carboxybenzaldehyde and p-toluic acid or 3-carboxybenzaldehyde and m-toluic acid in crude I and isophthalic acid, resp. Thus, p-xylene was oxidized with a gas stream comprising nitrogen 53, carbon dioxide 7, and oxygen 40% using a 100:200:300:147 ppm Co-Mn-Br-K catalyst at 185.degree. and 28 atm for 62.0 min, giving I in 59.5% yield with purity 83.1%, compared with 58.3 and 80.3, resp., 63.2 min without CO2 and 58.2, and 78.2, resp., in 73.2 min without CO2 or K.

IT 88-99-3P, Phthalic acid, preparation 100-21-0P,
Terephthalic acid, preparation 121-91-5P, Isophthalic
acid, preparation 528-44-9P, Trimellitic acid
(prodn. of arom. carboxylic acids by oxidn. of alkyl arom.
comps. using an **alkali metal** or **alk**
earth metal catalyst)

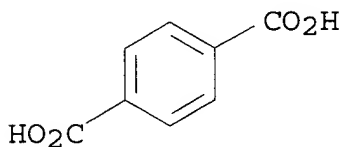
RN 88-99-3 HCA

CN 1,2-Benzenedicarboxylic acid (9CI) (CA INDEX NAME)



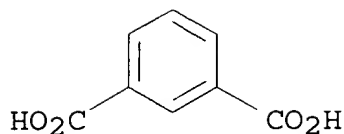
RN 100-21-0 HCA

CN 1,4-Benzenedicarboxylic acid (9CI) (CA INDEX NAME)

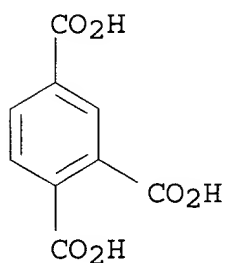


RN 121-91-5 HCA

CN 1,3-Benzenedicarboxylic acid (9CI) (CA INDEX NAME)



RN 528-44-9 HCA
 CN 1,2,4-Benzenetricarboxylic acid (8CI, 9CI) (CA INDEX NAME)



IC ICM C07C051-265
 CC 35-2 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 25, 45
 ST arom carboxylic acid prepn oxidn catalyst; terephthalic acid prepn
 oxidn catalyst; **alkali metal** catalyst oxidn
 xylene; **alk** earth **metal** catalyst oxidn xylene;
 carbon dioxide oxidn xylene
 IT Aromatic hydrocarbons, reactions
 (alkyl; prodn. of arom. carboxylic acids by oxidn. of alkyl arom.
 compds. using an **alkali metal** or **alk**
 . earth **metal** catalyst)
 IT Carboxylic acids, preparation
 (arom.; prodn. of arom. carboxylic acids by oxidn. of alkyl arom.
 compds. using an **alkali metal** or **alk**
 . earth **metal** catalyst)
 IT **Alkali metals**, uses
 Alkaline earth metals
 Rare earth metals, uses
Transition metals, uses
 (catalyst contg.; prodn. of arom. carboxylic acids by oxidn. of
 alkyl arom. compds. using an **alkali metal** or
alk. earth **metal** catalyst)
 IT Oxidation catalysts
 (prodn. of arom. carboxylic acids by oxidn. of alkyl arom.
 compds. using an **alkali metal** or **alk**
 . earth **metal** catalyst)
 IT 7439-93-2, Lithium, uses 7439-95-4, Magnesium, uses 7439-96-5,
 Manganese, uses 7440-09-7, Potassium, uses 7440-17-7, Rubidium,
 uses 7440-23-5, Sodium, uses 7440-24-6, Strontium, uses
 7440-39-3, Barium, uses 7440-41-7, Beryllium, uses 7440-46-2,
 Cesium, uses 7440-48-4, Cobalt, uses 7440-67-7, Zirconium, uses
 7440-70-2, Calcium, uses 7726-95-6, Bromine, uses

- (catalyst contg.; prodn. of arom. carboxylic acids by oxidn. of alkyl arom. compds. using an **alkali metal** or **alk. earth metal** catalyst)
- IT 7439-89-6, Iron, reactions 7439-98-7, Molybdenum, reactions
7440-33-7, Tungsten, reactions 7440-45-1, Cerium, reactions
7440-47-3, Chromium, reactions 7440-58-6, Hafnium, reactions
(catalyst contg.; prodn. of arom. carboxylic acids by oxidn. of alkyl arom. compds. using an **alkali metal** or **alk. earth metal** catalyst)
- IT 124-38-9, Carbon dioxide, reactions
(oxidn. by; prodn. of arom. carboxylic acids by oxidn. of alkyl arom. compds. using an **alkali metal** or **alk. earth metal** catalyst)
- IT 65-85-0P, Benzoic acid, preparation 85-44-9P, Phthalic anhydride
88-99-3P, Phthalic acid, preparation 89-32-7P,
Pyromellitic dianhydride **100-21-0P**, Terephthalic acid,
preparation **121-91-5P**, Isophthalic acid, preparation
517-60-2P, Benzenhexacarboxylic acid **528-44-9P**,
Trimellitic acid 552-30-7P, Trimellitic anhydride 554-95-0P,
Trimesic acid 787-70-2P, 4,4'-Biphenyldicarboxylic acid
1585-40-6P, Benzenepentacarboxylic acid 28604-87-7P,
Naphthalenedicarboxylic acid
(prodn. of arom. carboxylic acids by oxidn. of alkyl arom. compds. using an **alkali metal** or **alk. earth metal** catalyst)
- IT 87-85-4, Hexamethylbenzene 95-47-6, o-Xylene, reactions 95-63-6,
Pseudocumene 95-93-2, Durene 99-04-7, m-Toluic acid 99-94-5,
p-Toluic acid 104-87-0, p-Tolualdehyde 106-42-3, p-Xylene,
reactions 108-38-3, reactions 108-67-8, Mesitylene, reactions
108-88-3, Toluene, reactions 118-90-1, o-Toluic acid 119-67-5,
2-Carboxybenzaldehyde 529-20-4, o-Tolualdehyde 613-33-2,
4,4'-Dimethylbiphenyl 619-21-6, 3-Carboxybenzaldehyde 619-66-9,
4-Carboxybenzaldehyde 620-23-5 700-12-9, Pentamethylbenzene
28804-88-8, Dimethylnaphthalene
(prodn. of arom. carboxylic acids by oxidn. of alkyl arom. compds. using an **alkali metal** or **alk. earth metal** catalyst)
- L114 ANSWER 8 OF 28 HCA COPYRIGHT 2003 ACS
- 133:44846 Spinning method of polyester fiber. Yamamoto, Tomonori
(Teijin Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2000170033 A2
20000620, 5 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP
1998-345281 19981204.
- AB The polyester fiber having good strength is prepd. by melt-spinning
a mixt. of 100 parts an ethylene terephthalate-based polyester
(e.g., copolymer of di-Me terephthalate 194, ethylene glycol 124 and
trimellitic acid 0.26 part) which contains 0.01-0.5 mol of a chain
branching agent and 0.01-1.0 part an alkali metal salt or alkali
earth metal salt of H₂SO₄, H₂CO₃ and/or RCOOH (R = C_{>6} alkyl; e.g.,
Na stearate) at >3500 m/min.
- IT **82540-12-3P**, Dimethyl terephthalate-ethylene
glycol-trimellitic acid copolymer



(spinning method of polyester fiber with good strength)

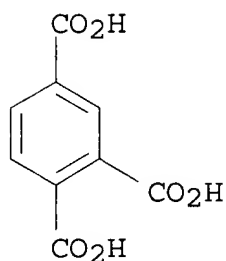
RN 82540-12-3 HCA

CN 1,2,4-Benzenetricarboxylic acid, polymer with dimethyl
1,4-benzenedicarboxylate and 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

CRN 528-44-9

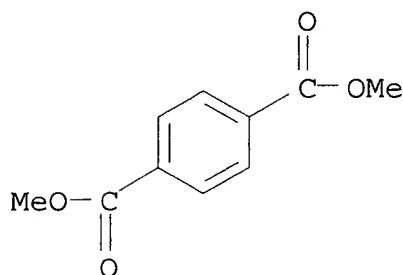
CMF C9 H6 O6



CM 2

CRN 120-61-6

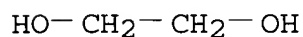
CMF C10 H10 O4



CM 3

CRN 107-21-1

CMF C2 H6 O2

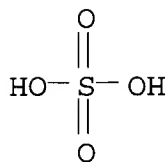


IT 7757-82-6, Sodium sulfate, uses

(spinning method of polyester fiber with good strength)

RN 7757-82-6 HCA

CN Sulfuric acid disodium salt (8CI, 9CI) (CA INDEX NAME)

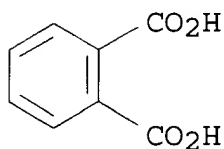


●2 Na

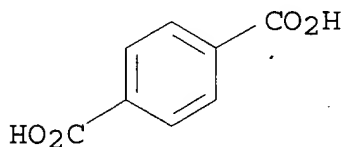
- IC ICM D01F006-92
ICS D01F006-92; D01F006-84
- CC 40-2 (Textiles and Fibers)
- IT 25990-08-3P, Dimethyl terephthalate-ethylene glycol-pentaerythritol copolymer 31135-71-4P, Dimethyl terephthalate-ethylene glycol-glycerin copolymer 31532-64-6P, Dimethyl terephthalate-ethylene glycol-trimethylolpropane copolymer **82540-12-3P**, Dimethyl terephthalate-ethylene glycol-trimellitic acid copolymer (spinning method of polyester fiber with good strength)
- IT 532-32-1, Sodium benzoate 822-16-2, Sodium stearate 7727-43-7, Barium sulfate **7757-82-6**, Sodium sulfate, uses (spinning method of polyester fiber with good strength)
- L114 ANSWER 9 OF 28 HCA COPYRIGHT 2003 ACS
132:6255 Exothermic effervescent **composition** for improved fragrance dispersion. Needleman, Norman; Rau, Allen (Phyzz, Inc., USA). U.S. US 5993854 A 19991130, 5 pp. (English). CODEN: USXXAM. APPLICATION: US 1998-7959 19980116. PRIORITY: US 1997-59198 19970917.
- AB An aroma releasing compn. has an effervescent agent, an exothermic agent and a volatile agent, the effervescent agent and exothermic agent provided in a ratio sufficient to promote release of the volatile agent, when the compn. is placed in water. Such a compn. has use, alone, in promoting release of fragrance agents, or in combination with a product, such as a body lotion, shampoo or liq. soap. Thus, a compn. contained citric Acid 25.55, Na₂CO₃ 12.70, NaHCO₃ 13.00, oil premix 3.40, MgCl₂ 28.85, PEG-150 0.50, and sorbitol 16.00% by wt. This formulation which contained both effervescent and exothermic agents gave the best dispersion and release of the volatile components. The combined effects of the effervescent reaction and exothermic reaction combine in an unexpected way to dramatically increase the lift and release of the volatile materials.
- IT **88-99-3**, 1,2-Benzenedicarboxylic acid, biological studies
100-21-0, 1,4-Benzenedicarboxylic acid, biological studies
121-91-5, 1,3-Benzenedicarboxylic acid, biological studies
144-55-8, Sodium bicarbonate, biological studies
298-14-6, Potassium bicarbonate **497-19-8**, Sodium

carbonate, biological studies 528-44-9,
 1,2,4-Benzenetricarboxylic acid 584-08-7 7550-35-8
 , Lithium bromide 7773-01-5, Manganese chloride
 7785-87-7, Manganese sulfate 10377-51-2, Lithium
 iodide
 (exothermic effervescent compn. for improved fragrance
 dispersion)

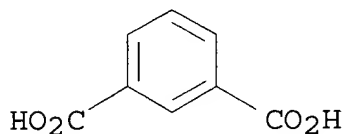
RN 88-99-3 HCA
 CN 1,2-Benzenedicarboxylic acid (9CI) (CA INDEX NAME)



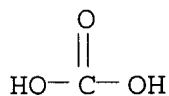
RN 100-21-0 HCA
 CN 1,4-Benzenedicarboxylic acid (9CI) (CA INDEX NAME)



RN 121-91-5 HCA
 CN 1,3-Benzenedicarboxylic acid (9CI) (CA INDEX NAME)

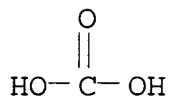


RN 144-55-8 HCA
 CN Carbonic acid monosodium salt (8CI, 9CI) (CA INDEX NAME)



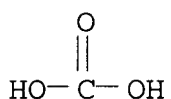
Na

RN 298-14-6 HCA
 CN Carbonic acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)



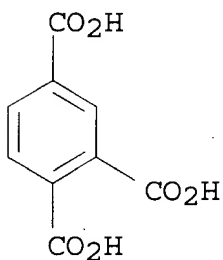
K

RN 497-19-8 HCA
CN Carbonic acid disodium salt (8CI, 9CI) (CA INDEX NAME)

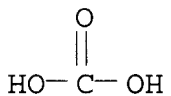


2 Na

RN 528-44-9 HCA
CN 1,2,4-Benzenetricarboxylic acid (8CI, 9CI) (CA INDEX NAME)



RN 584-08-7 HCA
CN Carbonic acid, dipotassium salt (8CI, 9CI) (CA INDEX NAME)



2 K

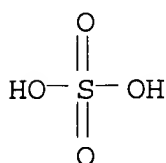
RN 7550-35-8 HCA
CN Lithium bromide (LiBr) (9CI) (CA INDEX NAME)

Br-Li

RN 7773-01-5 HCA
 CN Manganese chloride (MnCl₂) (8CI, 9CI) (CA INDEX NAME)

Cl-Mn-Cl

RN 7785-87-7 HCA
 CN Sulfuric acid, manganese(2+) salt (1:1) (8CI, 9CI) (CA INDEX NAME)



⊙ Mn(II)

RN 10377-51-2 HCA
 CN Lithium iodide (LiI) (9CI) (CA INDEX NAME)

I-Li

IC ICM A61K009-46
 ICS A61K007-06; A61K007-00; A61K009-14
 NCL 424466000
 CC 62-5 (Essential Oils and Cosmetics)
 IT 50-21-5, Lactic acid, biological studies 50-81-7, L-Ascorbic acid, biological studies 56-86-0, L-Glutamic acid, biological studies 59-67-6, Nicotinic acid, biological studies 60-12-8, .beta.-Phenylethyl alcohol 64-18-6, Formic acid, biological studies 64-19-7, Acetic acid, biological studies 65-85-0, Benzoic acid, biological studies 69-72-7, Salicylic acid, biological studies 76-22-2, Camphor 77-92-9, biological studies 78-70-6, Linalool 79-09-4, Propanoic acid, biological studies 80-69-3, Tartronic acid 81-15-2, Musk xylol 87-69-4, Tartaric acid, biological studies 88-99-3, 1,2-Benzenedicarboxylic acid, biological studies 90-64-2, Mandelic acid 91-20-3D, Naphthalene, derivs., biological studies 93-08-3, Methyl .beta.-naphthyl ketone 93-15-2, Methyl eugenol 93-92-5, Methyl phenylcarbinyl acetate 97-53-0, Eugenol 97-54-1, Isoeugenol 98-11-3, Benzenesulfonic acid, biological studies 98-79-3 98-86-2, Acetophenone, biological studies 100-21-0, 1,4-Benzenedicarboxylic acid, biological studies 100-51-6, Benzyl alcohol, biological studies 101-86-0, .alpha.-HexylCinnamic

aldehyde 103-36-6, Ethyl cinnamate 103-54-8, Cinnamyl acetate 103-82-2, Phenylacetic acid, biological studies 103-95-7, Cyclamen aldehyde 104-15-4, biological studies 104-46-1, Anethole 104-54-1, Cinnamyl alcohol 104-67-6, .gamma.-Undecalactone 105-54-4, Ethyl butyrate 106-23-0, Citronellal 106-24-1, Geraniol 107-75-5, Hydroxycitronellal 107-92-6, Butanoic acid, biological studies 109-52-4, Valeric acid, biological studies 110-15-6, Butanedioic acid, biological studies 110-16-7, Maleic acid, biological studies 110-17-8, Fumaric acid, biological studies 110-38-3, Ethyl caprate 110-44-1 110-94-1, Glutaric acid 111-16-0, Heptanedioic acid 112-30-1, Decanol 115-95-7, Linalool acetate 116-02-9, 3,3,5-Trimethylcyclohexanol 120-72-9, Indole, biological studies 121-32-4, Ethyl vanillin 121-33-5, Vanillin **121-91-5**, 1,3-Benzenedicarboxylic acid, biological studies 122-00-9, p-Methylacetophenone 122-03-2, Cumin aldehyde 122-40-7 122-63-4, Benzyl propionate 123-11-5, Anisaldehyde, biological studies 123-92-2, Isoamyl acetate 124-04-9, Hexanedioic acid, biological studies 134-20-3, Methyl anthranilate 140-11-4, Benzyl acetate 141-82-2, Malonic acid, biological studies **144-55-8**, Sodium bicarbonate, biological studies 144-62-7, Ethanedioic acid, biological studies 149-91-7, Gallic acid, biological studies **298-14-6**, Potassium bicarbonate 471-34-1, Calcium carbonate, biological studies 473-81-4, Glyceric acid 487-79-6, Kainic acid **497-19-8**, Sodium carbonate, biological studies 506-87-6, Ammonium carbonate 507-70-0, Borneol 526-95-4, Gluconic acid **528-44-9**, 1,2,4-Benzenetricarboxylic acid 533-96-0, Sodium sesquicarbonate 546-93-0, Magnesium carbonate 552-63-6, Tropic acid **584-08-7** 600-15-7, .alpha.-Hydroxybutyric acid 621-82-9, Cinnamic acid, biological studies 659-70-1, Isoamyl isovalerate 1066-33-7, Ammonium bicarbonate 1304-28-5, Barium oxide, biological studies 1305-78-8, Calcium oxide, biological studies 1312-73-8, Potassium sulfide 1313-82-2, Sodium sulfide, biological studies 1313-85-5, Sodium selenide 1330-43-4, Sodium tetraborate 1337-83-3, Undecenal 1490-04-6, Menthol 2630-39-9, Methyl dihydrojasmonate 5329-14-6, Sulfamic acid 5392-40-5, Citral 6915-15-7 7446-70-0, Aluminum chloride (AlCl₃), biological studies 7487-88-9, Magnesium sulfate, biological studies **7550-35-8**, Lithium bromide 7558-80-7, Sodium dihydrogen phosphate 7632-05-5, Sodium phosphate 7646-78-8, Stannic chloride, biological studies 7646-85-7, Zinc chloride, biological studies 7647-01-0, Hydrochloric acid, biological studies 7647-18-9, Antimony pentachloride 7664-38-2, Phosphoric acid, biological studies 7681-57-4, Sodium pyrosulfite 7699-45-8, Zinc bromide 7705-08-0, Ferric chloride, biological studies 7719-12-2, Phosphorous trichloride 7727-15-3, Aluminum bromide 7733-02-0, Zinc sulfate 7757-83-7, Sodium sulfite 7758-94-3, Ferrous chloride **7773-01-5**, Manganese chloride 7778-77-0, Potassium dihydrogen phosphate 7784-23-8, Aluminum iodide **7785-87-7**, Manganese sulfate 7786-30-3, Magnesium chloride, biological studies 7787-47-5, Beryllium chloride 7789-41-5, Calcium bromide 7789-48-2, Magnesium bromide

10024-93-8, Neodymium chloride 10034-85-2, Hydriodic acid
 10035-10-6, Hydrobromic acid, biological studies 10042-91-8
 10043-52-4, Calcium chloride, biological studies 10102-68-8,
 Calcium iodide 10117-38-1, Potassium sulfite 10124-36-4, Cadmium
 sulfate 10124-52-4 10139-47-6, Zinc iodide **10377-51-2**,
 Lithium iodide 10377-58-9, Magnesium iodide 10476-81-0,
 Strontium bromide 12057-24-8, Lithium oxide, biological studies
 12136-45-7, Potassium oxide, biological studies 12648-47-4,
 Platinum chloride 13138-45-9, Nickel nitrate 13718-50-8, Barium
 iodide 16674-84-3, Aluminum sulfate hexahydrate 17194-00-2,
 Barium hydroxide 18088-11-4, Rubidium oxide 18721-05-6, Chromium
 bromide hexahydrate 20281-00-9, Cesium oxide 21351-79-1, Cesium
 hydroxide 22898-59-5, Barium oxide monohydrate 28261-03-2,
 Hexenol 29656-58-4, Hydroxy benzoic acid 33032-84-7
 39345-92-1, Chromium chloride 53563-67-0D, Dimethylindane, derivs.
 57856-81-2, Allyl caprate 101508-09-2, Potassium sesquicarbonate
 103346-15-2 111937-70-3, Hydroxyacrylic acid
 (exothermic effervescent compn. for improved fragrance
 dispersion)

L114 ANSWER 10 OF 28 HCA COPYRIGHT 2003 ACS

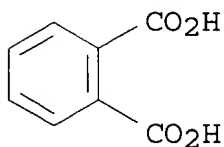
131:248054 Effervescent bath tablet **compositions**. Schrempf,
 David O.; Smith, Ward M. (R&d Ventures, Inc., USA). U.S. US 5958454
 A 19990928, 5 pp. (English). CODEN: USXXAM. APPLICATION: US
 1997-866030 19970530.

AB The present invention relates to effervescent bath tablet compns.
 that contain an org. acid, sodium bicarbonate, sodium carbonate, and
 a salt of a fatty acid. These invention bath tablet compns.
 characteristically exhibit low dissoln. rates in warm water. A
 claimed bath tablet compn. comprises: (a) 5-50 % citric acid
 particles, wherein .gtoreq. 50 % of the citric acid particles have a
 particle size within the range of 149-1190 .mu.m; (b) 5-50 % NaHCO₃;
 (c) 5-50 % Na₂CO₃; (d) 0.001-5 % Mg stearate; and (e) 0.01-10 % Na
 benzoate, wherein a 0.01 % aq. soln. of the bath tablet compn. has a
 pH of 7.0 or above, and wherein the compn. exhibits a dissoln. rate
 of less than about 0.1 g/s in water at 40.degree..

IT **88-99-3**, Phthalic acid, biological studies **144-55-8**
 , Sodium bicarbonate, biological studies **497-19-8**, Sodium
 carbonate, biological studies **528-44-9**, Trimellitic acid
 (effervescent bath tablets contg. acids and bicarbonates and
 carbonates and fatty acid salts)

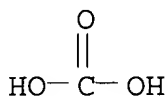
RN 88-99-3 HCA

CN 1,2-Benzenedicarboxylic acid (9CI) (CA INDEX NAME)



RN 144-55-8 HCA

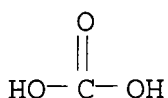
CN Carbonic acid monosodium salt (8CI, 9CI) (CA INDEX NAME)



● Na

RN 497-19-8 HCA

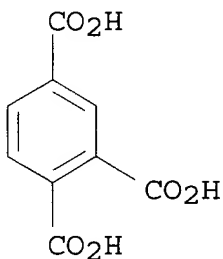
CN Carbonic acid disodium salt (8CI, 9CI) (CA INDEX NAME)



●2 Na

RN 528-44-9 HCA

CN 1,2,4-Benzenetricarboxylic acid (8CI, 9CI) (CA INDEX NAME)



IC ICM A61K009-46

NCL 424466000

CC 62-4 (Essential Oils and Cosmetics)

IT 50-81-7, L-Ascorbic acid, biological studies 56-84-8, Aspartic acid, biological studies 56-86-0, Glutamic acid, biological studies 59-67-6, Nicotinic acid, biological studies 69-72-7, biological studies 77-92-9, biological studies 79-14-1, biological studies 80-69-3, Tartronic acid 87-69-4, biological studies 88-99-3, Phthalic acid, biological studies 103-82-2, Phenylacetic acid, biological studies 110-15-6, Butanedioic acid, biological studies 110-16-7, 2-Butenedioic acid (2Z)-, biological studies 110-17-8, 2-Butenedioic acid (2E)-, biological studies 110-44-1, Sorbic acid 110-94-1, Pentanedioic acid 111-16-0, Pimelic acid 124-04-9, Hexanedioic acid,

biological studies 141-82-2, Malonic acid, biological studies
144-55-8, Sodium bicarbonate, biological studies
497-19-8, Sodium carbonate, biological studies
528-44-9, Trimellitic acid 532-32-1, Sodium benzoate
552-63-6, Tropic acid 557-04-0, Magnesium stearate 621-82-9,
Cinnamic acid, biological studies 629-25-4, Sodium laurate
6915-15-7, Malic acid 29656-58-4, Hydroxybenzoic acid
(effervescent bath tablets contg. acids and bicarbonates and
carbonates and fatty acid salts)

L114 ANSWER 11 OF 28 HCA COPYRIGHT 2003 ACS

129:137112 Biaxially stretched polyester films having good colorability
and their manufacture. Park, Sang-Bong; Han, Kyun-Heum; Park, Jong
Chang (Kolon Industries, Inc., S. Korea). Jpn. Kokai Tokkyo Koho JP
10166414 A2 19980623 Heisei, 8 pp. (Japanese). CODEN: JKXXAF.
APPLICATION: JP 1997-362140 19971211. PRIORITY: KR 1996-64039
19961211.

AB The films satisfy the following formulas: (a) $3.295 \text{ .ltoreq. NMD} + \text{NTD .ltoreq. } 3.340$, (b) face orientation $\text{.ltoreq. } 0.740$ [face
orientation = $[1.095 - \{(N2ND - 1)/(N2ND + 2)\} \text{ .times. } \{(p2 + 2)/(p2 - 1)\}]/0.345$; $p = (NMD + NTD + NND)/3$], (c) crystn. degree $\text{.ltoreq. } 54$ [crystn. degree (%) = $\{(\rho.a - \rho.c)/(\rho.c - \rho.a)\} \text{ .times. } 100$; $\rho.a = 1.336$; $\rho.c = 1.457$], (d) $3 \text{ .ltoreq. heat shrinkage (\%)} \text{ in a machine direction (MD) at } 200.\text{degree. for } 10 \text{ min .ltoreq. } 7$, and (e) $0 \text{ .ltoreq. heat shrinkage (\%)} \text{ in a transverse direction (TD) at } 200.\text{degree. for } 10 \text{ min .ltoreq. } 3$, wherein NMD, NTD, and NND represent refractive index in MD, TD, and thickness direction (ND) of the films, resp. The films are manufd. by melt extruding polyester chips, cooling using cooling drums to give noncryst. sheets, longitudinally stretching the sheets at $80\text{-}110.\text{degree. (gtoreq. Tg)}$ and stretch ratio $3.0\text{-}3.6$, transversely stretching the sheets at $120\text{-}140.\text{degree.}$ and stretch ratio $3.0\text{-}4.2$, heating the sheets in heat-treatment zones of $\text{gtoreq. } 5$ steps ranging from $210.\text{degree.}$ to $240.\text{degree.}$ for relaxation of $0.01\text{-}10\%$ in MD or TD, and winding the films. Thus, di-Me terephthalate-ethylene glycol copolymer was melt extruded at $295.\text{degree.}$, cooled, biaxially stretched, and heat treated according to the above process to give a film showing a-value -38.02 and color concn. 0.20 after 1-h immersion in a bath contg. 0.5% Miketone FBL Blue at $96.\text{degree.}$.

IT 210588-86-6P

(biaxially stretched polyester films with good colorability)

RN 210588-86-6 HCA

CN 1,4-Benzenedicarboxylic acid, polymer with 1,2-ethanediol and
potassium methyl 1,2,4-benzenetricarboxylate (9CI) (CA INDEX NAME)

CM 1

CRN 107-21-1

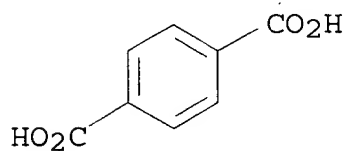
CMF C2 H6 O2



CM 2

CRN 100-21-0

CMF C8 H6 O4



CM 3

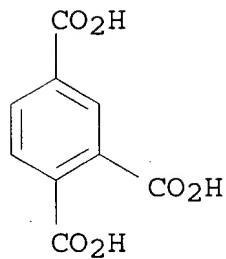
CRN 212271-33-5

CMF C9 H6 O6 . x C H4 O . x K

CM 4

CRN 528-44-9

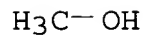
CMF C9 H6 O6



CM 5

CRN 67-56-1

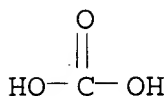
CMF C H4 O



IT 584-08-7, Potassium carbonate
(manuf. of Me potassium trimellitate)

RN 584-08-7 HCA

CN Carbonic acid, dipotassium salt (8CI, 9CI) (CA INDEX NAME)



2 K

IC ICM B29C047-00
 ICS B29C047-88; B29C055-12; B29C071-02; C08J005-18; C08J007-00;
 B29K067-00; B29L007-00; C08L067-00

CC 38-3 (Plastics Fabrication and Uses)

IT 25038-59-9P, Dimethyl terephthalate-ethylene glycol copolymer, uses
210588-86-6P
 (biaxially stretched polyester films with good colorability)

IT 552-30-7 **584-08-7**, Potassium carbonate
 (manuf. of Me potassium trimellitate)

L114 ANSWER 12 OF 28 HCA COPYRIGHT 2003 ACS

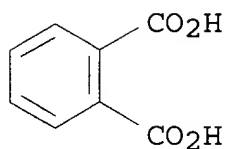
128:66311 Effervescent bath tablet **compositions**. Schrempf,
 David O.; Smith, Ward M. (R & D Ventures, Inc., USA). PCT Int.
 Appl. WO 9745103 A1 19971204, 21 pp. DESIGNATED STATES: W: AL, AM,
 AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB,
 GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV,
 MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,
 TJ, TM, TR, TT, UA, UG, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ,
 TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FI, FR, GA,
 GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG.
 (English). CODEN: PIXXD2. APPLICATION: WO 1997-US9273 19970530.
 PRIORITY: US 1996-18812 19960531.

AB The present invention relates to effervescent bath tablet compns.
 that contain an org. acid, sodium bicarbonate, sodium carbonate, and
 a salt of a fatty acid. These bath tablet compns.
 characteristically exhibit low dissoln. rates in warm water. Thus,
 bath tablet compns. contained citric acid of 2 different particle
 size distributions (each) 11.88, NaHCO₃ 22.76, sorbitol 11.00,
 Carbowax-8000 3.00, Mg stearate 0.10, Na benzoate 2.00, dye 0.86,
 and fragrance 0.10% by wt.

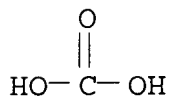
IT **88-99-3**, Phthalic acid, biological studies **144-55-8**
 , Sodium bicarbonate, biological studies **497-19-8**, Sodium
 carbonate, biological studies **528-44-9**, Trimellitic acid
 (effervescent bath tablet compns. contg. carboxylates and bases)

RN 88-99-3 HCA

CN 1,2-Benzenedicarboxylic acid (9CI) (CA INDEX NAME)

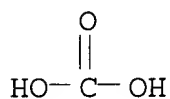


RN 144-55-8 HCA
CN Carbonic acid monosodium salt (8CI, 9CI) (CA INDEX NAME)



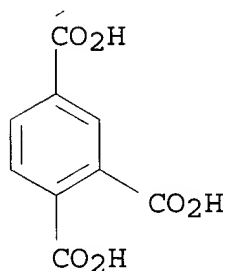
⊕ Na

RN 497-19-8 HCA
CN Carbonic acid disodium salt (8CI, 9CI) (CA INDEX NAME)



2 Na

RN 528-44-9 HCA
CN 1,2,4-Benzenetricarboxylic acid (8CI, 9CI) (CA INDEX NAME)



IC ICM A61K009-46
CC 62-4 (Essential Oils and Cosmetics)
Section cross-reference(s): 63
IT 50-81-7, Ascorbic acid, biological studies 56-84-8, Aspartic acid,
biological studies 56-86-0, Glutamic acid, biological studies

59-67-6, Nicotinic acid, biological studies 69-72-7, Salicylic acid, biological studies 77-92-9, Citric acid, biological studies 79-14-1, Glycolic acid, biological studies 80-69-3, Tartronic acid 87-69-4, Tartaric acid, biological studies **88-99-3**, Phthalic acid, biological studies 103-82-2, Phenylacetic acid, biological studies 110-15-6, Succinic acid, biological studies 110-16-7, Maleic acid, biological studies 110-17-8, Fumaric acid, biological studies 110-44-1, Sorbic acid 110-94-1, Glutaric acid 111-16-0, Pimelic acid 124-04-9, Adipic acid, biological studies 141-82-2, Malonic acid, biological studies **144-55-8**, Sodium bicarbonate, biological studies **497-19-8**, Sodium carbonate, biological studies **528-44-9**, Trimellitic acid 552-63-6, Tropic acid 557-04-0, Magnesium stearate 621-82-9, Cinnamic acid, biological studies 6915-15-7, Malic acid 29656-58-4, Hydroxybenzoic acid

(effervescent bath tablet compns. contg. carboxylates and bases)

L114 ANSWER 13 OF 28 HCA COPYRIGHT 2003 ACS

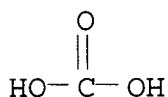
127:294411 Expandable vinyl chloride polymer **compositions** for powder slush molding. Fujita, Kazuyoshi (Mitsubishi Kasei Vinyl K. K., Japan). Jpn. Kokai Tokkyo Koho JP 09241460 A2 19970916 Heisei, 5 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-52966 19960311.

AB Title compns., from which heat-resistant uniform-thickness skinned cellular moldings are manufd., are obtained by dry blending vinyl chloride polymers with plasticizers, non-amine-type thermally decomposable blowing agents, fatty acid amides, and stearic acids. The moldings are useful for interior materials. Thus, PVC (av. d.p. 900) was dry blended with D-11 (alkyl phthalate), epoxidized linseed oil, NaHCO₃, oleamide, stearic acid, stabilizers, colorant, and PVC paste resin (av. particle size .ltoreq.5 .mu.m), molded, and expanded at 240.degree. to give a skinned cellular molding with thickness 2.5-3 mm, which showed almost no yellowing 500 h after at 110.degree..

IT **144-55-8**, Sodium bicarbonate, uses
(blowing agent; expandable PVC compns. for powder slush molding for heat- and yellowing-resistant interior materials)

RN 144-55-8 HCA

CN Carbonic acid monosodium salt (8CI, 9CI) (CA INDEX NAME)



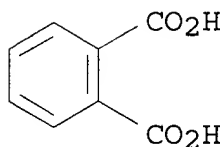
Na

IT **88-99-3D**, Phthalic acid, alkyl esters **528-44-9D**, Trimellitic acid, esters

(plasticizers; expandable PVC compns. for powder slush molding for heat- and yellowing-resistant interior materials)

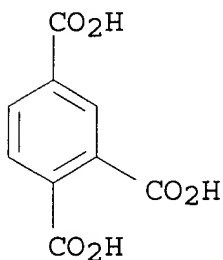
RN 88-99-3 HCA

CN 1,2-Benzenedicarboxylic acid (9CI) (CA INDEX NAME)



RN 528-44-9 HCA

CN 1,2,4-Benzenetricarboxylic acid (8CI, 9CI) (CA INDEX NAME)



IC ICM C08L027-06

ICS C08J009-08; C08K003-26; C08K005-09; C08K005-12; C08K005-20; C08L067-00

CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 37

IT 144-55-8, Sodium bicarbonate, uses
(blowing agent; expandable PVC compns. for powder slush molding for heat- and yellowing-resistant interior materials)

IT 88-99-3D, Phthalic acid, alkyl esters 528-44-9D,
Trimellitic acid, esters
(plasticizers; expandable PVC compns. for powder slush molding for heat- and yellowing-resistant interior materials)

L114 ANSWER 14 OF 28 HCA COPYRIGHT 2003 ACS

125:337242 Inorganic binder-containing **compositions**, and their manufacture and use, and dispersant-containing cristobalite pastes and their use. Scheller, Georg (Germany). Ger. Offen. DE 19512548 A1 19961010, 5 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1995-19512548 19950406.

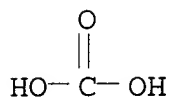
AB The compns. contain cristobalite (I) having av. particle size 0.5-500 .mu.m. The I is used in the form of a dispersion or suspension. The rapid-setting compns. and pastes prevent cracking, and are used for laying floors. An esp. preferred compn. consists of aq. dispersion of liq. epoxy resin 13, aq. polyaminoamide 10, water 5, cement 7, rapid-setting cement 12, sand 28, CaSO4 3.5, pigment 1.5, filler 1.5, and I 18.5 wt.%.

IT 554-13-2, Lithium carbonate

(dispersant-contg. cristobalite paste- and inorg. binder-contg.
non-cracking rapid-setting compns. for floors)

RN 554-13-2 HCA

CN Carbonic acid, dilithium salt (8CI, 9CI) (CA INDEX NAME)



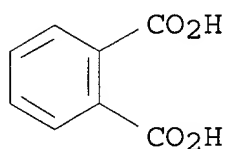
2 Li

IT 88-99-3D, Phthalic acid, esters

(dispersant; dispersant-contg. cristobalite paste- and inorg.
binder-contg. non-cracking rapid-setting compns. for floors)

RN 88-99-3 HCA

CN 1,2-Benzenedicarboxylic acid (9CI) (CA INDEX NAME)

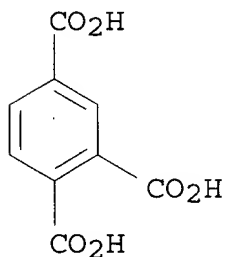


IT 528-44-9D, 1,2,4-Benzenetricarboxylic acid, esters

(dispersants; dispersant-contg. cristobalite paste- and inorg.
binder-contg. non-cracking rapid-setting compns. for floors)

RN 528-44-9 HCA

CN 1,2,4-Benzenetricarboxylic acid (8CI, 9CI) (CA INDEX NAME)



IC ICM C04B022-06

ICS C04B024-24; C04B024-42; C04B028-00

ICA C08L023-02; C08L025-04; C08L027-06; C08L031-04; C08L033-04;
C08L063-00; C08L009-00; C08L075-04; C08L061-28; C08L083-04;
C08L021-02

CC 58-3 (Cement, Concrete, and Related Building Materials)

IT 554-13-2, Lithium carbonate 7778-18-9, Calcium sulfate
(dispersant-contg. cristobalite paste- and inorg. binder-contg.)

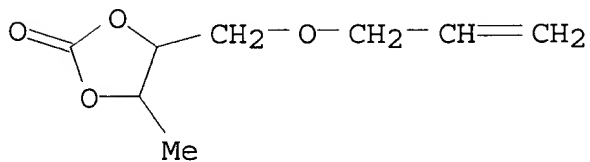
- non-cracking rapid-setting compns. for floors)
- IT 57-55-6, 1,2-Propanediol, uses 60-29-7, Diethyl ether, uses 64-17-5, Ethanol, uses 67-56-1, Methanol, uses 67-63-0, 2-Propanol, uses 67-64-1, 2-Propanone, uses 68-12-2, DMF, uses 70-55-3, p-Toluenesulfonamide 71-55-6, 1,1,1-Trichloroethane 75-05-8, Acetonitrile, uses 75-07-0, Acetaldehyde, uses 75-09-2, Methylene chloride, uses 79-01-6, uses 79-20-9, Methyl acetate 88-99-3D, Phthalic acid, esters 98-10-2, Benzenesulfonamide 107-21-1, 1,2-Ethanediol, uses 108-88-3, Toluene, uses 110-54-3, Hexane, uses 110-71-4, Ethyleneglycol dimethyl ether 110-82-7, Cyclohexane, uses 141-78-6, Ethyl acetate, uses 629-14-1, Ethyleneglycol diethyl ether 7732-18-5, Water, uses (dispersant; dispersant-contg. cristobalite paste- and inorg. binder-contg. non-cracking rapid-setting compns. for floors)
- IT 88-99-3D, Phthalic acid, esters with diols 528-44-9D, 1,2,4-Benzenetricarboxylic acid, esters 7664-38-2D, Phosphoric acid, esters 26776-26-1D, Poly(adipic acid), esters with diols 26776-28-3D, Poly(azelaic acid), esters with diols 26776-29-4D, Poly(sebacic acid), esters with diols (dispersants; dispersant-contg. cristobalite paste- and inorg. binder-contg. non-cracking rapid-setting compns. for floors)
- L114 ANSWER 15 OF 28 HCA COPYRIGHT 2003 ACS
- 123:35436 Curable vinyl resin having oxodioxolanyl group and cure system for thermosetting resin **composition** for coatings having weather and acid resistance. Iwamura, Goro; Kinoshita, Hiroshi; Kometani, Asako (Dainipponink and Chemicals, Inc., Japan). U.S. US 5374699 A 19941220, 16 pp. Cont.-in-part of U.S. Ser. No. 885,544, abandoned. (English). CODEN: USXXAM. APPLICATION: US 1994-192582 19940207. PRIORITY: JP 1989-254803 19890929; JP 1990-180604 19900710; US 1990-589211 19900928; US 1991-798989 19911202; US 1992-885544 19920519.
- AB A thermosetting resin compn. comprises (A) a vinyl polymer having .gtoreq.1 each of 2-oxo-1,3-dioxolan-4-yl group and a carboxyl group together on the polymer and a catalyst (B) effective for ring-opening the 2-oxo-1,3-dioxolan-4-yl group, and related resin compns. contg. also (C) a compd. having .gtoreq.2 carboxy groups and/or anhydride, and (D) a cure agent reactive with OH groups. Addnl. compns. are also claimed. A coating compn. contg. Bu methacrylate-2-methyl-2,3-carbonatopropyl methacrylate-Me methacrylate-styrene copolymer (prepn. given as xylene soln.) 1000, acrylic acid-Bu methacrylate-styrene copolymer cure agent 450, and trimethylbenzylammonium hydroxide 10 parts was applied onto Zn phosphated steel plates and baked at 130.degree. for 20 min to give
- o coatings having gloss retention (after 2000 h in weather-o-meter) 85%.
- IT 164177-90-6 164177-91-7 164177-92-8 (coatings based on vinyl resin having oxodioxolanyl group having good properties and weather resistance)
- RN 164177-90-6 HCA
- CN 1,2,4-Benzenetricarboxylic acid, ester with 1,2,3-propanetriol

(3:1), polymer with ethenyl acetate, ethenyl neononanoate and 4-methyl-5-[(2-propenyloxy)methyl]-1,3-dioxolan-2-one (9CI) (CA INDEX NAME)

CM 1

CRN 134966-69-1

CMF C8 H12 O4

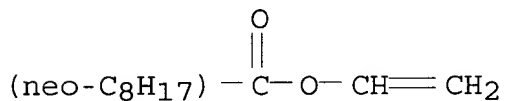


CM 2

CRN 54423-67-5

CMF C11 H20 O2

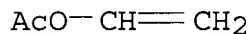
CCI IDS



CM 3

CRN 108-05-4

CMF C4 H6 O2



CM 4

CRN 112408-92-1

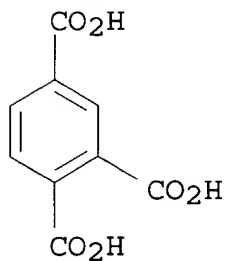
CMF C30 H20 O18

CCI IDS

CM 5

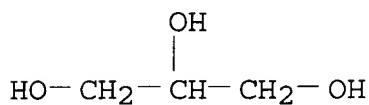
CRN 528-44-9

CMF C9 H6 O6



CM 6

CRN 56-81-5
CMF C3 H8 O3

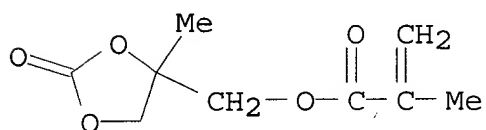


RN 164177-91-7 HCA

CN 1,2,4-Benzenetricarboxylic acid, ester with 1,2,3-propanetriol (3:1), polymer with butyl 2-methyl-2-propenoate, ethenylbenzene, methyl 2-methyl-2-propenoate and (4-methyl-2-oxo-1,3-dioxolan-4-yl)methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

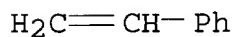
CM 1

CRN 134966-65-7
CMF C9 H12 O5



CM 2

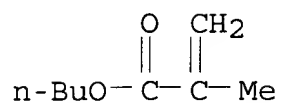
CRN 100-42-5
CMF C8 H8



CM 3

CRN 97-88-1

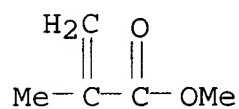
CMF C8 H14 O2



CM 4

CRN 80-62-6

CMF C5 H8 O2



CM 5

CRN 112408-92-1

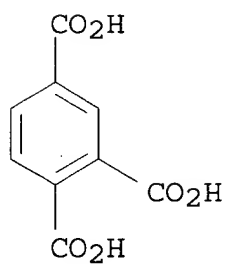
CMF C30 H20 O18

CCI IDS

CM 6

CRN 528-44-9

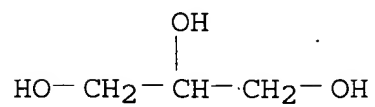
CMF C9 H6 O6



CM 7

CRN 56-81-5

CMF C3 H8 O3



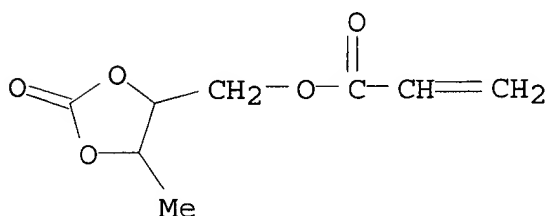
RN 164177-92-8 HCA

CN 1,2,4-Benzenetricarboxylic acid, ester with 1,2,3-propanetriol (3:1), polymer with ethenylbenzene, 2-ethylhexyl 2-methyl-2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate, (5-methyl-2-oxo-1,3-dioxolan-4-yl)methyl 2-propenoate, 2-methylpropyl 2-methyl-2-propenoate and (2-oxo-1,3-dioxolan-4-yl)methyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 134966-67-9

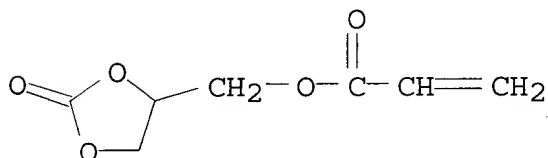
CMF C8 H10 O5



CM 2

CRN 7528-90-7

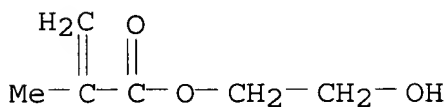
CMF C7 H8 O5



CM 3

CRN 868-77-9

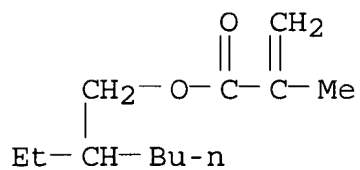
CMF C6 H10 O3



CM 4

CRN 688-84-6

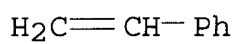
CMF C12 H22 O2



CM 5

CRN 100-42-5

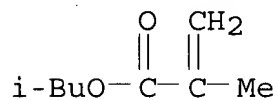
CMF C8 H8



CM 6

CRN 97-86-9

CMF C8 H14 O2



CM 7

CRN 112408-92-1

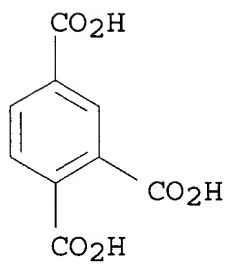
CMF C30 H20 O18

CCI IDS

CM 8

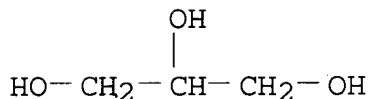
CRN 528-44-9

CMF C9 H6 O6

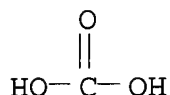


CM 9

CRN 56-81-5
CMF C3 H8 O3



IT 584-08-7, Potassium carbonate
(crosslinking catalyst; coatings based on vinyl resin having
oxodioxolanyl group having good properties and weather
resistance)
RN 584-08-7 HCA
CN Carbonic acid, dipotassium salt (8CI, 9CI) (CA INDEX NAME)



2 K

IC ICM C08L069-00
NCL 526269000
CC 42-10 (Coatings, Inks, and Related Products)
Section cross-reference(s): 37
IT 134966-66-8 134966-68-0 134966-71-5 134966-79-3 163883-13-4
164177-90-6 164177-91-7 164177-92-8
(coatings based on vinyl resin having oxodioxolanyl group having
good properties and weather resistance)
IT 104-15-4, uses 584-08-7, Potassium carbonate 3115-68-2,
Tetrabutylphosphonium bromide 7664-38-2, Phosphoric acid, uses
16969-11-2, Trimethylbenzylammonium acetate
(crosslinking catalyst; coatings based on vinyl resin having
oxodioxolanyl group having good properties and weather
resistance)

L114 ANSWER 16 OF 28 HCA COPYRIGHT 2003 ACS
123:34500 Porous polyester particle with good light shading and light
diffuse reflection. Maeda, Satoshi; Hotsuta, Yasunari; Yoneda,
Shigeru; Yamada, Yozo (Toyo Boseki, Japan). Jpn. Kokai Tokkyo Koho
JP 07070331 A2 19950314 Heisei, 9 pp. (Japanese). CODEN: JKXXAF.
APPLICATION: JP 1993-222531 19930907.

AB The particle, having porosity 1-99 vol% and useful in polyester
binder and film, is prepd. by dispersing ion group-contg. polyester
(ion content 20-2000 equiv./ton; e.g., terephthalic acid-isophthalic
acid-fumaric acid-5-Na sulfoisophthalate-ethylene glycol-neopentyl
glycol copolymer) in water, coagulating slowly and treating in an
electrolyte soln. (e.g., amino alcs.).

IT 7647-14-5, Sodium chloride, uses
(electrolyte; porous polyester particle with good light shading
and light diffuse reflection)

RN 7647-14-5 HCA

CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl-Na

IT 164154-23-8

(porous particle; porous polyester particle with good light
shading and light diffuse reflection)

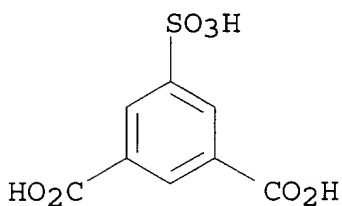
RN 164154-23-8 HCA

CN 1,2,4-Benzenetricarboxylic acid, polymer with 1,3-
benzenedicarboxylic acid, 1,4-benzenedicarboxylic acid,
2,2-dimethyl-1,3-propanediol, 1,2-ethanediol and
5-sulfo-1,3-benzenedicarboxylic acid monosodium salt (9CI) (CA
INDEX NAME)

CM 1

CRN 6362-79-4

CMF C8 H6 O7 S . Na

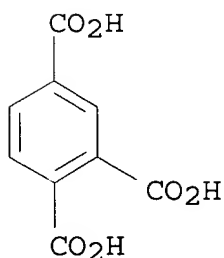


● Na

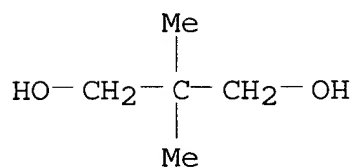
CM 2

CRN 528-44-9

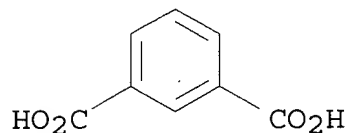
CMF C9 H6 O6



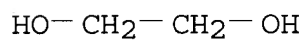
CM 3

CRN 126-30-7
CMF C5 H12 O2

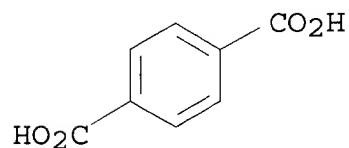
CM 4

CRN 121-91-5
CMF C8 H6 O4

CM 5

CRN 107-21-1
CMF C2 H6 O2

CM 6

CRN 100-21-0
CMF C8 H6 O4

IC ICM C08J003-16
ICS C08J003-12
ICI C08L067-00
CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 38

- IT 79-41-4, Methacrylic acid, uses 108-01-0, Dimethylaminoethanol
7647-14-5, Sodium chloride, uses
 (electrolyte; porous polyester particle with good light shading
 and light diffuse reflection)
- IT 58501-25-0 155912-71-3 164154-21-6 164154-22-7
164154-23-8
 (porous particle; porous polyester particle with good light
 shading and light diffuse reflection)

L114 ANSWER 17 OF 28 HCA COPYRIGHT 2003 ACS

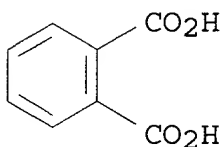
122:33795 Sheets not alterable by chemical agents and security documents
 from. Barthez, Alain; Dubois, Sandrine (Arjo Wiggins SA, Fr.). Fr.
 Demande FR 2693749 A1 19940121, 11 pp. (French). CODEN: FRXXBL.
 APPLICATION: FR 1992-8711 19920715.

AB Title sheets contain as a nonalteration agent contg. .gtoreq.1 metal
 salt in combination with an org. acid, org. acid salt, or org. acid
 deriv., a CO₂ precursor, and a reducing agent with an aldehyde or
 ketone functionality or their mixts. A paper sheet was treated with
 an aq. soln. contg. cobalt nitrate and tartaric acid (I) and dried
 and when treated with a soln. of sodium sulfite (alteration agent)
 gave an orange coloration which was of greater intensity than
 treating with a soln. not contg. I.

IT **88-99-3**, Phthalic acid, uses **144-55-8**, Sodium
 bicarbonate, uses **497-19-8**, Sodium carbonate, uses
528-44-9, Trimellitic acid **7785-87-7**, Manganese
 sulfate **10141-05-6**, Cobalt nitrate
 (sheets not alterable by chem. agents and security documents
 from)

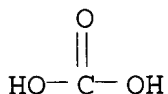
RN 88-99-3 HCA

CN 1,2-Benzenedicarboxylic acid (9CI) (CA INDEX NAME)



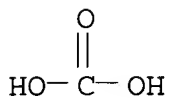
RN 144-55-8 HCA

CN Carbonic acid monosodium salt (8CI, 9CI) (CA INDEX NAME)



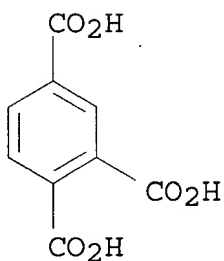
Na

RN 497-19-8 HCA
CN Carbonic acid disodium salt (8CI, 9CI) (CA INDEX NAME)

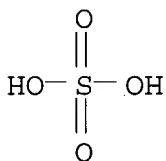


2 Na

RN 528-44-9 HCA
CN 1,2,4-Benzenetricarboxylic acid (8CI, 9CI) (CA INDEX NAME)

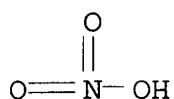


RN 7785-87-7 HCA
CN Sulfuric acid, manganese(2+) salt (1:1) (8CI, 9CI) (CA INDEX NAME)



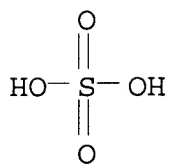
Mn(II)

RN 10141-05-6 HCA
CN Nitric acid, cobalt(2+) salt (8CI, 9CI) (CA INDEX NAME)



⊙ 1/2 Co(II)

- IC ICM D21H021-46
 CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)
 IT 56-86-0, Glutamic acid, uses 70-47-3, Asparagine, uses 77-92-9, Citric acid, uses 87-69-4, Tartaric acid, uses 88-99-3, Phthalic acid, uses 99-14-9, Tricarballic acid 123-72-8, Butyraldehyde 127-09-3, Sodium acetate 141-82-2, Malonic acid, uses 144-55-8, Sodium bicarbonate, uses 497-19-8, Sodium carbonate, uses 528-44-9, Trimellitic acid 7718-54-9, Nickel chloride, uses 7785-87-7, Manganese sulfate 10141-05-6, Cobalt nitrate (sheets not alterable by chem. agents and security documents from)
- L114 ANSWER 18 OF 28 HCA COPYRIGHT 2003 ACS
 122:32887 Manufacture of spherical polyester particles with narrow particle size distribution. Maeda, Satoshi; Hotsuta, Yasunari; Juchi, Minako; Yamada, Yozo (Toyo Boseki, Japan). Jpn. Kokai Tokkyo Koho JP 06145367 A2 19940524 Heisei, 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1992-301263 19921111.
- AB The title nonswelling particles useful as fillers, matting agents, column chromatog. supports, etc. (no data) are manufd. by adding electrolytes to an aq. dispersion of ionic group-contg. polyester microparticles having av. sizes .gtoreq.0.1 .mu.m under plasticizing conditions to introduce them to the mild coagulation state and to enlarge particle size. Stirring 1000 parts a polyester bearing units derived from di-Me terephthalate 50, di-Me isophthalate 49, and di-Me 5-sodiosulfoisophthalate 1 and ethylene glycol 100 mol% in 500 parts Bu Cellosolve at 70.degree., adding 700 parts water at 70.degree. and evapg. at 100.degree. to remove water gave a 30%-solids dispersion contg. microparticles with diam. 0.2 .mu.m and Zeta potential -52 mV. Mixing 1000 parts this dispersion with 8.5 parts NH4OAc, heating to 80.degree., and mixing 240 min at 80.degree. gave a dispersion contg. spheres with diam. 5.6 .mu.m and sharp size distribution.
- IT 7757-82-6, Sodium sulfate, uses (electrolytes; manuf. of spherical polyester particles with narrow particle size distribution)
- RN 7757-82-6 HCA
 CN Sulfuric acid disodium salt (8CI, 9CI) (CA INDEX NAME)



2 Na

IT 149360-43-0 160029-15-2 160029-16-3
160029-18-5 160029-20-9 160029-21-0

(manuf. of spherical polyester particles with narrow particle size distribution)

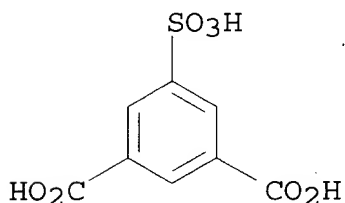
RN 149360-43-0 HCA

CN 1,2,4-Benzenetricarboxylic acid, polymer with 1,3-benzenedicarboxylic acid, 1,4-benzenedicarboxylic acid, 1,2-ethanediol, 1,2-propanediol and 5-sulfo-1,3-benzenedicarboxylic acid monosodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 6362-79-4

CMF C8 H6 O7 S . Na

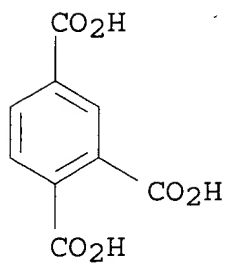


● Na

CM 2

CRN 528-44-9

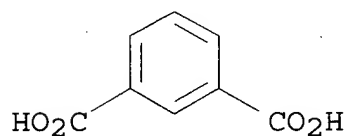
CMF C9 H6 O6



CM 3

CRN 121-91-5

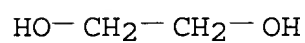
CMF C8 H6 O4



CM 4

CRN 107-21-1

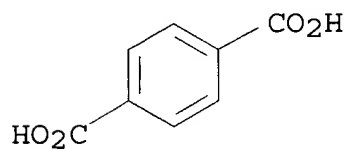
CMF C2 H6 O2



CM 5

CRN 100-21-0

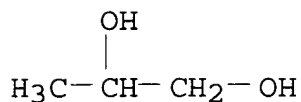
CMF C8 H6 O4



CM 6

CRN 57-55-6

CMF C3 H8 O2



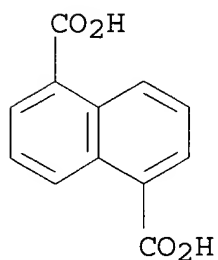
RN 160029-15-2 HCA

CN 1,2,4-Benzenetricarboxylic acid, polymer with 1,3-benzenedicarboxylic acid, 1,4-benzenedicarboxylic acid, 1,2-ethanediol, 1,5-naphthalenedicarboxylic acid and 5-sulfo-1,3-benzenedicarboxylic acid monosodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 7315-96-0

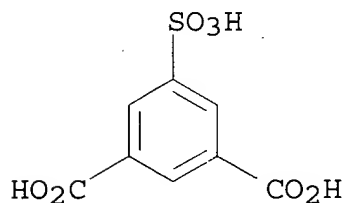
CMF C12 H8 O4



CM 2

CRN 6362-79-4

CMF C8 H6 O7 S . Na

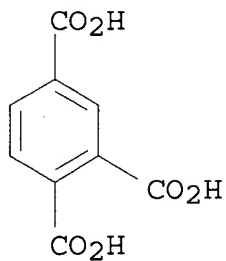


● Na

CM 3

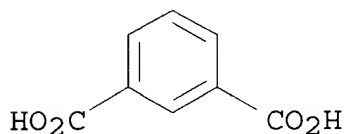
CRN 528-44-9

CMF C9 H6 O6



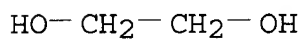
CM 4

CRN 121-91-5
CMF C8 H6 O4



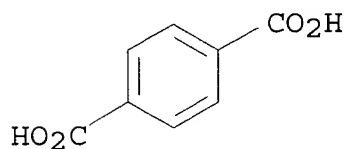
CM 5

CRN 107-21-1
CMF C2 H6 O2



CM 6

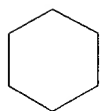
CRN 100-21-0
CMF C8 H6 O4



RN 160029-16-3 HCA
CN 1,2,4-Benzenetricarboxylic acid, polymer with cyclohexanediol,
dimethyl 1,3-benzenedicarboxylate, dimethyl 1,4-
benzenedicarboxylate, 1,3-dimethyl 5-sulfo-1,3-benzenedicarboxylate
sodium salt and 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

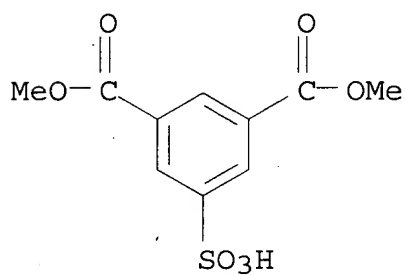
CRN 28553-75-5
CMF C6 H12 O2
CCI IDS



2 (D1-OH)

CM 2

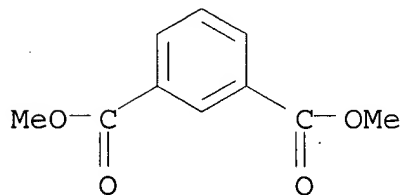
CRN 3965-55-7
CMF C10 H10 O7 S . Na



● Na

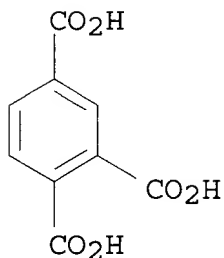
CM 3

CRN 1459-93-4
CMF C10 H10 O4



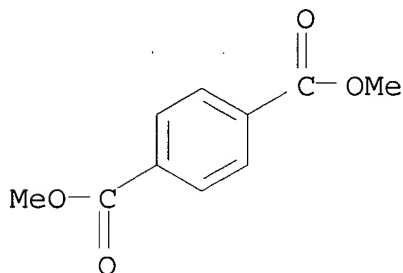
CM 4

CRN 528-44-9
CMF C9 H6 O6



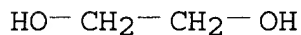
CM 5

CRN 120-61-6
CMF C10 H10 O4



CM 6

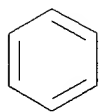
CRN 107-21-1
CMF C2 H6 O2



RN 160029-18-5 HCA
CN 1,2,4-Benzenetricarboxylic acid, polymer with dimethyl
1,3-benzenedicarboxylate, dimethyl 1,4-benzenedicarboxylate,
1,3-dimethyl 5-sulfo-1,3-benzenedicarboxylate sodium salt,
1,2-ethanediol and octahydro-4,7-methano-1H-indene-5,?-dimethanol,
(1,1-dimethylethyl)benzoate (9CI) (CA INDEX NAME)

CM 1

CRN 1320-16-7
CMF C11 H14 O2
CCI IDS

D1-CO₂H

D1-Bu-t

CM 2

CRN 160029-17-4

CMF (C12 H20 O2 . C10 H10 O7 S . C10 H10 O4 . C10 H10 O4 . C9 H6 O6
. C2 H6 O2 . Na)x

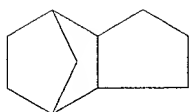
CCI PMS

CM 3

CRN 26160-83-8

CMF C12 H20 O2

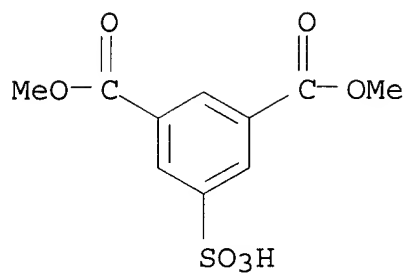
CCI IDS

2 [D1-CH₂-OH]

CM 4

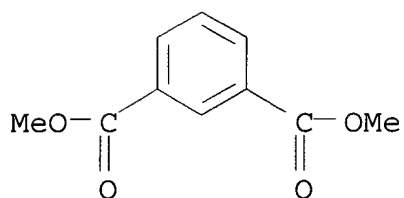
CRN 3965-55-7

CMF C10 H10 O7 S . Na

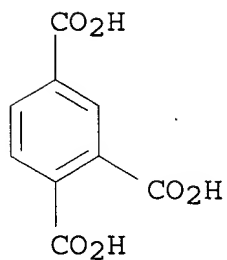


● Na

CM 5

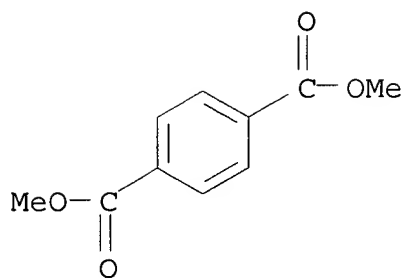
CRN 1459-93-4
CMF C10 H10 O4

CM 6

CRN 528-44-9
CMF C9 H6 O6

CM 7

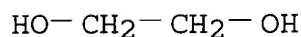
CRN 120-61-6
CMF C10 H10 O4



CM 8

CRN 107-21-1

CMF C2 H6 O2



RN 160029-20-9 HCA

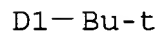
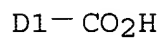
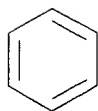
CN 1,2,4-Benzenetricarboxylic acid, polymer with 1,3-benzenedicarboxylic acid, 1,4-benzenedicarboxylic acid, (2Z)-2-butenedioic acid, 1,3-dimethyl 5-sulfo-1,3-benzenedicarboxylate sodium salt and 1,2-ethanediol, (1,1-dimethylethyl)benzoate (9CI) (CA INDEX NAME)

CM 1

CRN 1320-16-7

CMF C11 H14 O2

CCI IDS



CM 2

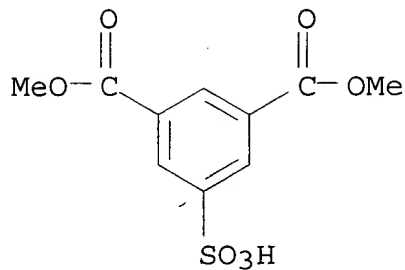
CRN 160029-19-6

CMF (C10 H10 O7 S . C9 H6 O6 . C8 H6 O4 . C8 H6 O4 . C4 H4 O4 . C2

CCI H6 O2 . Na)x
PMS

CM 3

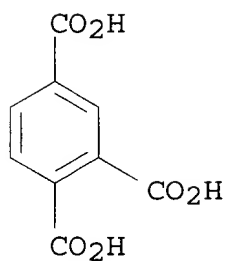
CRN 3965-55-7
CMF C10 H10 O7 S . Na



● Na

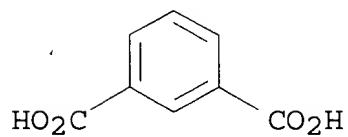
CM 4

CRN 528-44-9
CMF C9 H6 O6



CM 5

CRN 121-91-5
CMF C8 H6 O4

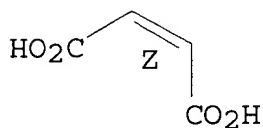


CM 6

CRN 110-16-7

CMF C4 H4 O4

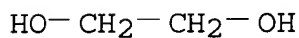
Double bond geometry as shown.



CM 7

CRN 107-21-1

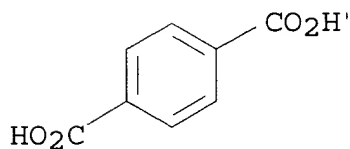
CMF C2 H6 O2



CM 8

CRN 100-21-0

CMF C8 H6 O4



RN 160029-21-0 HCA

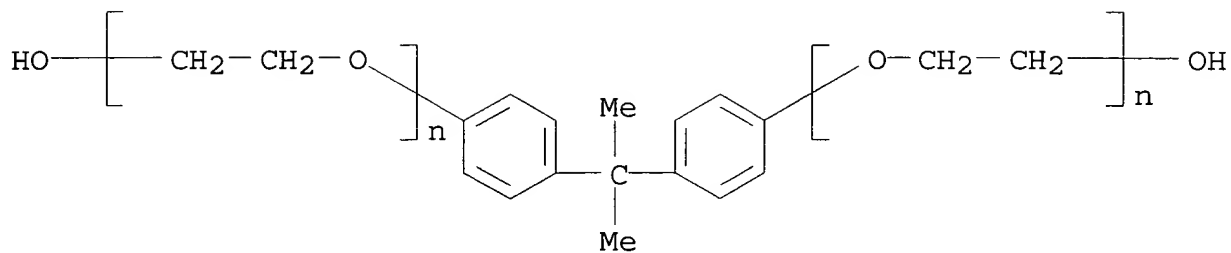
CN 1,2,4-Benzenetricarboxylic acid, polymer with 1,3-benzenedicarboxylic acid, 1,4-benzenedicarboxylic acid, (2Z)-2-butenedioic acid, 1,2-ethanediol and .alpha.,.alpha.'-[(1-methylethylidene)di-4,1-phenylene]bis[.omega.-hydroxypoly(oxy-1,2-ethanediyl)] (9CI) (CA INDEX NAME)

CM 1

CRN 32492-61-8

CMF (C2 H4 O)n (C2 H4 O)n C15 H16 O2

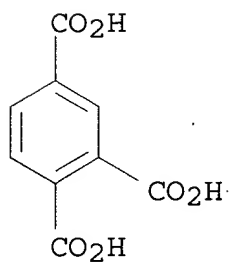
CCI PMS



CM 2

CRN 528-44-9

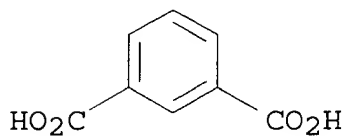
CMF C9 H6 O6



CM 3

CRN 121-91-5

CMF C8 H6 O4

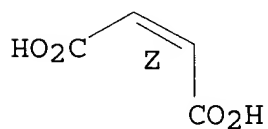


CM 4

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.



CM 5

CRN 107-21-1

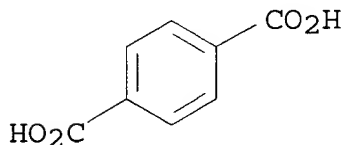
CMF C2 H6 O2



CM 6

CRN 100-21-0

CMF C8 H6 O4



IC ICM C08J003-16

ICS C08L067-02

ICI C08L067-00

CC 37-3 (Plastics Manufacture and Processing)

IT 631-61-8, Ammonium acetate 7757-82-6, Sodium sulfate, uses
(electrolytes; manuf. of spherical polyester particles with
narrow particle size distribution)

IT 26316-53-0, Ethylene glycol-maleic acid copolymer 30307-45-0
149360-43-0 160029-15-2 160029-16-3
160029-18-5 160029-20-9 160029-21-0

(manuf. of spherical polyester particles with narrow particle
size distribution)

L114 ANSWER 19 OF 28 HCA COPYRIGHT 2003 ACS

121:311957 Electrophotographic toners providing color images. Maeda,
Satoshi; Hotsuta, Yasunari; Juchi, Minako; Yamada, Yozo (Toyo
Boseki, Japan). Jpn. Kokai Tokkyo Koho JP 06175406 A2 19940624
Heisei, 12 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP
1992-328081 19921208.

AB The title toners contain a polymer as a binder resin, the anionic
part of an acidic dye which forms a salt with the cationic groups in
the side chains and/or termini of the polymer, and substantially no
cation (alkali metal ion such as Na⁺) which is the counter ion of
the dye. The toners show good environmental stability and provide
stable, high color quality images with high transparency in
continuously repeated copying. Thus, a mixt. of a polyester resin
from 2-dimethylaminomethyl-2-methyl-1,3-propanediol, di-Me
terephthalate, di-Me isophthalate, trimellitic anhydride, ethylene
glycol, and tricyclodecane dimethanol and a soln. of Aizen Rose

Bengal B was heat-treated, and the resulting colored resin was washed, pulverized, and classified to give a magenta toner.

IT 158901-32-7

(electrophotog. color toner contg. cationic polymer salt with acidic dye)

RN 158901-32-7 HCA

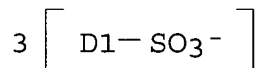
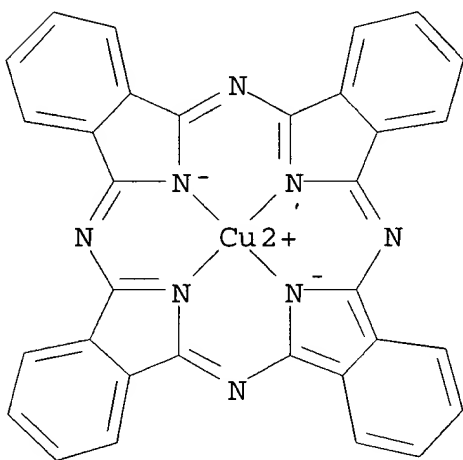
CN 1,2,4-Benzenetricarboxylic acid, polymer with 1,3-benzenedicarboxylic acid, 1,4-benzenedicarboxylic acid, 2-[(2-dimethylamino)methyl]-2-methyl-1,3-propanediol, 1,2-ethanediol and octahydro-4,7-methano-1H-indene-5,?-dimethanol, compd. with [29H,31H-phthalocyanine-C,C,C-trisulfonato(5-)-N29,N30,N31,N32]cuprate(3-) (9CI) (CA INDEX NAME)

CM 1

CRN 72928-61-1

CMF C32 H13 Cu N8 O9 S3

CCI CCS, IDS



CM 2

CRN 158901-24-7

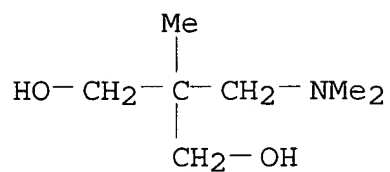
CMF (C12 H20 O2 . C9 H6 O6 . C8 H6 O4 . C8 H6 O4 . C7 H17 N O2 . C2 H6 O2) x

CCI PMS

CM 3

CRN 36254-31-6

CMF C7 H17 N O2

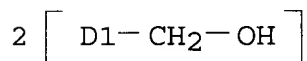
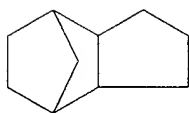


CM 4

CRN 26160-83-8

CMF C12 H20 O2

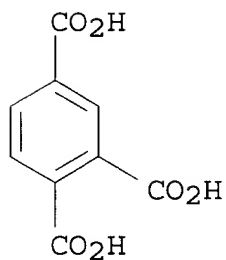
CCI IDS



CM 5

CRN 528-44-9

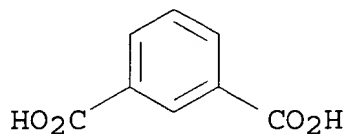
CMF C9 H6 O6



CM 6

CRN 121-91-5

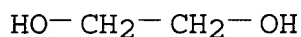
CMF C8 H6 O4



CM 7

CRN 107-21-1

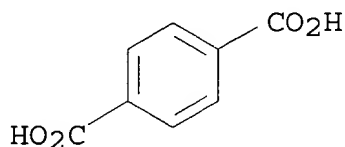
CMF C2 H6 O2



CM 8

CRN 100-21-0

CMF C8 H6 O4



IC ICM G03G009-09
ICS G03G009-087
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 158901-25-8 158901-26-9 158901-27-0 158901-29-2 158901-31-6
158901-32-7 158901-34-9 158901-35-0 158901-36-1
158901-38-3 158901-39-4 158901-40-7 158901-41-8 158901-42-9
158901-43-0 159339-34-1 159339-35-2 159339-36-3 159339-37-4
159339-38-5 159339-39-6
(electrophotog. color toner contg. cationic polymer salt with acidic dye)

L114 ANSWER 20 OF 28 HCA COPYRIGHT 2003 ACS

117:49950 Antistatic thermoplastic laminates containing polyamide-polyimides. Kamei, Tadashi; Teraoka, Tsutomu; Hirano, Hiroyuki (Asahi Kasei Kogyo K. K., Japan). Jpn. Kokai Tokkyo Koho JP 04045932 A2 19920214 Heisei, 13 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1990-154045 19900614.

AB The title laminates comprise thermoplastic substrates and a layer of a polymer prep'd. from caprolactam, an arom. tri- or tetracarboxylic acid or anhydride, a diisocyanate, and a polyoxyethylene group-contg. polymer contg. <10 phr electrolyte. Coextruding XUS 40056.01 (I; oxazoline-contg. styrene polymer) with a mixt. of 90% I

and 10% caprolactam-polyethylene glycol-trimellitic acid-diphenylmethane diisocyanate copolymer (II) contg. 0.5 phr KBr gave a laminate having flexural modulus 3300 kg/cm², tensile strength 740 kg/cm², elongation 5%, and static charge half-life 3 s, vs. 3200, 720, 5, and 1800, resp., without II and KBr.

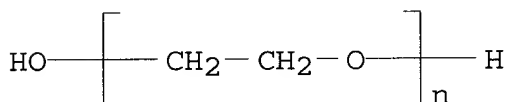
IT **7758-02-3**, Potassium bromide, miscellaneous
(antistatic agents, in thermoplastic laminates)
RN 7758-02-3 HCA
CN Potassium bromide (KBr) (9CI) (CA INDEX NAME)

Br-K

IT **141217-97-2**
(electrolyte-contg., thermoplastic laminates contg., antistatic)
RN 141217-97-2 HCA
CN 1,2,4-Benzenetricarboxylic acid, polymer with hexahydro-2H-azepin-2-one, .alpha.-hydro-.omega.-hydroxypoly(oxy-1,2-ethanediyl) and 1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA INDEX NAME)

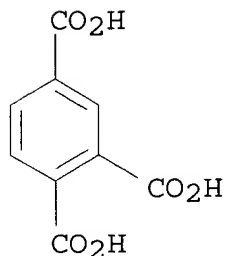
CM 1

CRN 25322-68-3
CMF (C2 H4 O)_n H2 O
CCI PMS



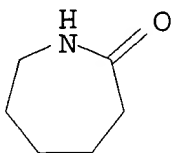
CM 2

CRN 528-44-9
CMF C9 H6 O6



CM 3

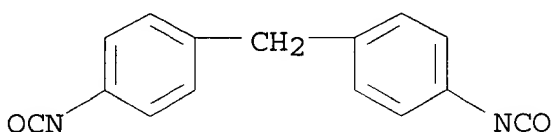
CRN 105-60-2
CMF C6 H11 N O



CM 4

CRN 101-68-8

CMF C15 H10 N2 O2



IC ICM B32B027-34
ICS B32B007-02; B32B027-40
CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 76
IT 7758-02-3, Potassium bromide, miscellaneous
(antistatic agents, in thermoplastic laminates)
IT 141217-97-2 141217-98-3 142517-51-9
(electrolyte-contg., thermoplastic laminates contg., antistatic)

L114 ANSWER 21 OF 28 HCA COPYRIGHT 2003 ACS

116:215629 Antistatic thermoplastic molding **compositions**.

Suzuki, Yoshio; Sakamoto, Masashi (Asahi Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 03255161 A2 19911114 Heisei, 23 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1990-51803 19900305.

AB The title compns. comprise 100 parts resins and .ltoreq.10 parts org. or inorg. electrolytes wherein the resins are obtained from (A) 70-99 parts thermoplastics, and (B) 30-1 parts transparent elastomers having relative viscosity (.eta.rel; in m-cresol, at 30.degree.) .gtoreq.1.5, which are derived from caprolactam, arom. tri- or tetracarboxylic acids or their anhydrides (a), org. diisocyanates (b), and 35-85% polyoxyalkylene glycols contg. .gtoreq.50% polyoxyethylene glycol of no.-av. mol. wt.(Mn) 500-4000 (c) at the a:(b + c) molar ratio .apprx.1:1. Thus, blending a 46:34.4:11.6 butadiene rubber-modified polystyrene/polystyrene/methacrylic acid-styrene copolymer mixt. with 8 phr an elastomeric copolymer (.eta.rel 1.95) of caprolactam 97, PEG (Mn 1490) 90, trimellitic acid 16.4, and MDI 4.52 g, and 0.5 phr Na dodecylbenzenesulfonate, and injection molding gave test pieces with good antistatic properties.

IT 7758-02-3, Potassium bromide, miscellaneous
(antistatic agents, for molding compns. contg.)

polyamidoimide-polyether rubbers and thermoplastics)

RN 7758-02-3 HCA

CN Potassium bromide (KBr) (9CI) (CA INDEX NAME)

Br--K

IT 141217-97-2

(rubber, for molding thermoplastic compns. contg. antistatic agents)

RN 141217-97-2 HCA

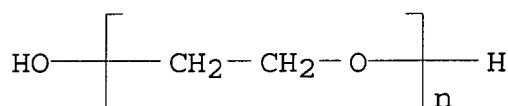
CN 1,2,4-Benzenetricarboxylic acid, polymer with hexahydro-2H-azepin-2-one, .alpha.-hydro-.omega.-hydroxypoly(oxy-1,2-ethanediyl) and 1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA INDEX NAME)

CM 1

CRN 25322-68-3

CMF (C2 H4 O)_n H2 O

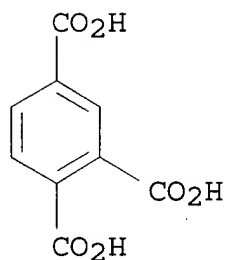
CCI PMS



CM 2

CRN 528-44-9

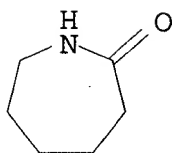
CMF C9 H6 O6



CM 3

CRN 105-60-2

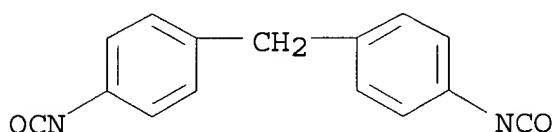
CMF C6 H11 N O



CM 4

CRN 101-68-8

CMF C15 H10 N2 O2



IC ICM C08L079-08
 ICS C08G018-34; C08L023-00; C08L025-04; C08L033-00; C08L059-00;
 C08L063-00; C08L067-02; C08L071-12; C08L077-00
 CC 37-6 (Plastics Manufacture and Processing)
 IT 333-20-0, Potassium thiocyanate 1112-67-0, Tetrabutylammonium
 chloride **7758-02-3**, Potassium bromide, miscellaneous
 25155-30-0, Sodium dodecylbenzenesulfonate 35171-60-9
 (antistatic agents, for molding compns. contg.
 polyamidoimide-polyether rubbers and thermoplastics)
 IT **141217-97-2** 141217-98-3 141217-99-4
 (rubber, for molding thermoplastic compns. contg. antistatic
 agents)

L114 ANSWER 22 OF 28 HCA COPYRIGHT 2003 ACS

115:257561 Preparation and uses of inorganic-organic fireproofing
 polyols. Blount, David H. (USA). U.S. US 5034423 A 19910723, 10
 pp. (English). CODEN: USXXAM. APPLICATION: US 1989-419513
 19891010.

AB Inorg.-org. fireproofing polyols are prepd. by mixing and reacting
 an epoxy compd. with a compd. contg. reactive H and acidic B compd.
 in the presence of an epoxy catalyss and a basic salt-forming compd.
 The polyols are useful in the manuf. of polyesters, polyamides, and
 polyurethanes and their deriv. products. Thus, propylene oxide 100,
 powd. dextrose 2.5, powd. boric acid 20, and 75% of H3PO4 100 parts
 were reacted under agitation for 1-8 h to form a fireproofing
 polyol. The polyol was then reacted with inorg. polyisocyanate to
 form a rigid fireproof polyurethane foam.

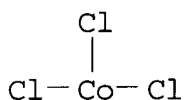
IT **7773-01-5**, Manganous chloride **10241-04-0**, Cobaltic
 chloride
 (catalysts, for inorg.-org. fireproofing polyol manuf.)

RN 7773-01-5 HCA

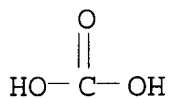
CN Manganese chloride (MnCl2) (8CI, 9CI) (CA INDEX NAME)



RN 10241-04-0 HCA
CN Cobalt chloride (CoCl_3) (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

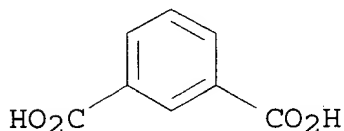


IT 497-19-8, Sodium carbonate, uses and miscellaneous
(fireproofing inorg.-org. polyol prepn. in presence of)
RN 497-19-8 HCA
CN Carbonic acid disodium salt (8CI, 9CI) (CA INDEX NAME)

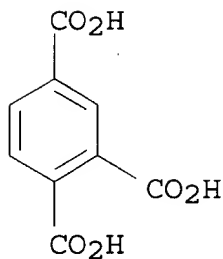


2 Na

IT 121-91-5DP, 1,3-Benzenedicarboxylic acid, reaction products
with epoxy compds. and reactive hydrogen-contg. compd. and acidic
boron compds. 528-44-9DP, 1,2,4-Benzenetricarboxylic acid,
reaction products with epoxy compds. and reactive hydrogen-contg.
compd. and acidic boron compds.
(fireproofing polyester polyols, prepn. and uses of)
RN 121-91-5 HCA
CN 1,3-Benzenedicarboxylic acid (9CI) (CA INDEX NAME)



RN 528-44-9 HCA
CN 1,2,4-Benzenetricarboxylic acid (8CI, 9CI) (CA INDEX NAME)



IC ICM C08J009-14
 NCL 521107000
 CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 38
 IT 7446-70-0, Aluminum chloride (AlCl₃), uses and miscellaneous
 7637-07-2, Boron trifluoride, uses and miscellaneous 7646-78-8,
 Tin tetrachloride, uses and miscellaneous 7646-85-7, Zinc
 chloride, uses and miscellaneous 7647-18-9, Antimony pentachloride
 7664-38-2, Phosphoric acid, uses and miscellaneous 7705-08-0,
 Ferric chloride, uses and miscellaneous **7773-01-5**,
 Manganous chloride 7784-34-1, Arsenic trichloride 7784-45-4,
 Arsenic triiodide 7786-30-3, Magnesium chloride, uses and
 miscellaneous 7789-41-5, Calcium bromide 7789-45-9, Cupric
 bromide 7789-48-2, Magnesium bromide 10031-25-1, Chromic bromide
 10102-68-8, Calcium iodide **10241-04-0**, Cobaltic chloride
 10294-34-5, Boron trichloride 10476-81-0, Strontium bromide
 14986-52-8, Cerium chloride (CeCl₄) 59233-54-4, Thorium chloride
 (catalysts, for inorg.-org. fireproofing polyol manuf.)
 IT 57-13-6, Urea, uses and miscellaneous 108-78-1, Melamine, uses and
 miscellaneous 141-43-5, Ethanolamine, uses and miscellaneous
 471-34-1, Calcium carbonate, uses and miscellaneous **497-19-8**
 , Sodium carbonate, uses and miscellaneous 506-87-6, Ammonium
 carbonate 1305-62-0, Calcium hydroxide, uses and miscellaneous
 1305-78-8, Calcium oxide, uses and miscellaneous 1344-09-8, Sodium
 silicate 1344-28-1, Alumina, uses and miscellaneous 20427-58-1,
 Zinc hydroxide 35869-47-7
 (fireproofing inorg.-org. polyol prepn. in presence of)
 IT 85-43-8DP, Tetrahydrophthalic anhydride, reaction products with
 epoxy compds. and reactive hydrogen-contg. compd. and acidic boron
 compds. 85-44-9DP, 1,3-Isobenzofurandione, reaction products with
 epoxy compds. and reactive hydrogen-contg. compd. and acidic boron
 compds. 97-65-4DP, reaction products with epoxy compds. and
 reactive hydrogen-contg. compd. and acidic boron compds.
 108-31-6DP, 2,5-Furandione, reaction products with epoxy compds. and
 reactive hydrogen-contg. compd. and acidic boron compds.
 108-55-4DP, Glutaric anhydride, reaction products with epoxy compds.
 and reactive hydrogen-contg. compd. and acidic boron compds.
 110-15-6DP, Succinic acid, reaction products with epoxy compds. and
 reactive hydrogen-contg. compd. and acidic boron compds.
 110-16-7DP, 2-Butenedioic acid (Z)-, reaction products with epoxy
 compds. and reactive hydrogen-contg. compd. and acidic boron compds.

110-17-8DP, 2-Butenedioic acid (E)-, reaction products with epoxy compds. and reactive hydrogen-contg. compd. and acidic boron compds.
111-20-6DP, Decanedioic acid, reaction products with epoxy compds. and reactive hydrogen-contg. compd. and acidic boron compds.
112-80-1DP, 9-Octadecenoic acid (Z)-, reaction products with epoxy compds. and reactive hydrogen-contg. compd. and acidic boron compds.
121-91-5DP, 1,3-Benzenedicarboxylic acid, reaction products with epoxy compds. and reactive hydrogen-contg. compd. and acidic boron compds.
123-99-9DP, Azelaic acid, reaction products with epoxy compds. and reactive hydrogen-contg. compd. and acidic boron compds.
124-04-9DP, Hexanedioic acid, reaction products with epoxy compds. and reactive hydrogen-contg. compd. and acidic boron compds.
505-48-6DP, Suberic acid, reaction products with epoxy compds. and reactive hydrogen-contg. compd. and acidic boron compds.
528-44-9DP, 1,2,4-Benzenetricarboxylic acid, reaction products with epoxy compds. and reactive hydrogen-contg. compd. and acidic boron compds.

(fireproofing polyester polyols, prepn. and uses of)

L114 ANSWER 23 OF 28 HCA COPYRIGHT 2003 ACS

114:33115 Three-dimensionally crosslinked polyester for electrophotographic toner and its manufacture. Kamitaki, Takaaki (Canon K. K., Japan). Jpn. Kokai Tokkyo Koho JP 02183267 A2 19900717 Heisei, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1989-2023 19890110.

AB The title polyester comprising a polyol and a polycarboxylic acid having a linkage with Ti is prepd. by crosslinking of the polyester using a Ti coupler. The toner with surface smoothness is fixable in a wide range of temp. Thus, Me terephthalate, Me trimellitate, polyoxyethylene(2,2)-2,2-bis(4-hydroxyphenyl)propane, and tetraisopropylbis(dioctylphosphite) titanate were polymd. then mixed with C.I. Pigment Yellow 17, a Cr-contg. charge controller, and powd. silica to give a yellow toner. A developer comprising a coated ferrite carrier and the toner gave a clear offset-free image after 25,000 printings.

IT **131317-58-3P**

(prepn. of, binder, for color electrophotog. developer toner, with surface smoothness)

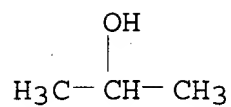
RN 131317-58-3 HCA

CN 1,2,4-Benzenetricarboxylic acid, polymer with dimethyl 1,4-benzenedicarboxylate, 1,2-ethanediol and 2-propanol titanium(4+) salt (9CI) (CA INDEX NAME)

CM 1

CRN 546-68-9

CMF C3 H8 O . 1/4 Ti

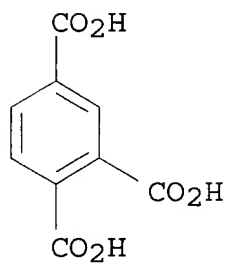


1/4 Ti(IV)

CM 2

CRN 528-44-9

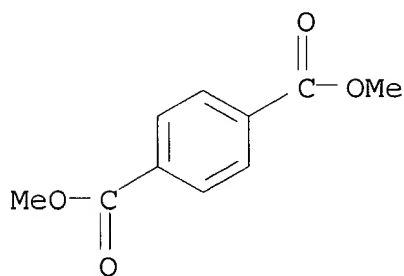
CMF C9 H6 O6



CM 3

CRN 120-61-6

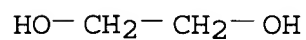
CMF C10 H10 O4



CM 4

CRN 107-21-1

CMF C2 H6 O2



IC ICM G03G009-087
ICS C08G063-68
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)
Section cross-reference(s): 35
IT 131317-57-2P **131317-58-3P** 131345-81-8P
(prepn. of, binder, for color electrophotog. developer toner,
with surface smoothness)

L114 ANSWER 24 OF 28 HCA COPYRIGHT 2003 ACS

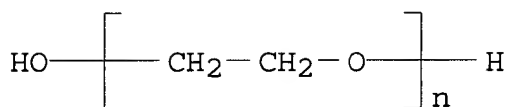
114:25639 Vinylic resin **compositions** containing polyamide
imide elastomers. Suzuki, Yoshio; Sakamoto, Masashi (Asahi Chemical
Industry Co., Ltd., Japan). PCT Int. Appl. WO 9007548 A1 19900712,
47 pp. DESIGNATED STATES: W: US; RW: AT, BE, CH, DE, ES, FR, GB,
IT, LU, NL, SE. (Japanese). CODEN: PIXXD2. APPLICATION: WO
1989-JP1329 19891228. PRIORITY: JP 1988-328892 19881228; JP
1989-74898 19890329; JP 1989-155747 19890620; JP 1989-155748
19890620; JP 1989-158199 19890622; JP 1989-158200 19890622.
AB Antistatic compns. contain 70-97% vinyl polymers, 3-30% polyamide
imide elastomers prepd. from caprolactam (I), imide ring-forming
tribasic or tetrabasic polycarboxylic acids, polyethylene glycol
(II) or mixts. of .gtoreq.50% II with polyoxyalkylene glycols, and
0-0.5 mol diamines or diisocyanates per mol of glycols, having
glycol contents 30-85% and relative viscosity of 30.degree. > 1.5,
and 0-10 phr electrolytes. Thus, 2680:259.4:1707 II-trimellitic
anhydride-I copolymer rubber 10, 12:88 butadiene-styrene copolymer
45, and polystyrene 45 parts were mixed, extruded, pelletized, and
injection molded to give a test piece having elec. charge half life
2 s, compared with > 3000 for a test piece contg. no elastomer.
IT **7758-02-3**, Potassium bromide, uses and miscellaneous
(electrolytes, antistatic agents, for polyamide imide
rubber-vinyl polymer blends)
RN 7758-02-3 HCA
CN Potassium bromide (KBr) (9CI) (CA INDEX NAME)

Br-K

IT **122988-85-6**
(rubber, blends with vinyl polymers, contg. electrolytes,
antistatic)
RN 122988-85-6 HCA
CN 1,2,4-Benzenetricarboxylic acid, polymer with hexahydro-2H-azepin-2-
one and .alpha.-hydro-.omega.-hydroxypoly(oxy-1,2-ethanediyl) (9CI)
(CA INDEX NAME)

CM 1

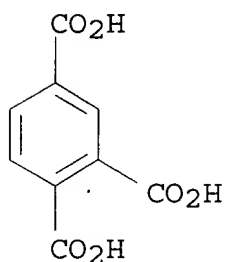
CRN 25322-68-3
CMF (C2 H4 O)_n H2 O
CCI PMS



CM 2

CRN 528-44-9

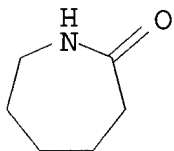
CMF C9 H6 O6



CM 3

CRN 105-60-2

CMF C6 H11 N O



IC ICM C08L025-00

CC 39-4 (Synthetic Elastomers and Natural Rubber)

IT 151-21-3, Sodium lauryl sulfate, uses and miscellaneous 333-20-0,
 Potassium thiocyanate 822-16-2, Sodium stearate 1112-67-0,
 Tetrabutylammonium chloride 7758-02-3, Potassium bromide,
 uses and miscellaneous 9003-04-7, Poly(acrylic acid) sodium salt
 12626-49-2, Sodium dodecyldiphenyl ether disulfonate 25155-30-0,
 Sodium dodecylbenzenesulfonate 131404-64-3, Amylphenylphosphonium
 bromide

(electrolytes, antistatic agents, for polyamide imide
 rubber-vinyl polymer blends)

IT 122988-85-6 122988-86-7 126249-85-2 131249-50-8
 131249-52-0

(rubber, blends with vinyl polymers, contg. electrolytes,
 antistatic)

105:115927 Highly processable aromatic polyester **compositions**.
 Asada, Masahiro; Takase, Junji; Fujimoto, Kazuhide (Kanegafuchi
 Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP
 61043654 A 19860303 Showa, 8 pp. (Japanese). CODEN: JKXXAF.
 APPLICATION: JP 1984-165349 19840807.

AB Blends of 100 parts arom. polyester prepd. from an **arom**
dicarboxylic acid and a dihydric phenol compd. and 0.1-50
 parts poly(alkylene terephthalate) contg. 0.001-2.0% polyoxyalkylene
 compd. with .gtoreq.1 alkali or **alk.** earth **metal**
 salt of a carboxylic acid are useful in prepg. injection moldings.
 Thus, a blend of 100 parts 440.15:61.9:548.1:247.10 bisphenol
 A-isophthaloyl chloride-terephthaloyl chloride-3,3',5,5'-
 tetramethylbisphenol F copolymer (I) and 10 parts polyethylene
 glycol phthalate Na salt (mol. wt. 370)-modified di-Me
 terephthalate-ethylene glycol copolymer was injection molded at
 300.degree. and 950 kg/cm³; I alone could be injected into the mold
 25% as fast as the blend at 365.degree. and 1800 kg/cm².

IT **104195-27-9**
 (bisphenol A-isophthaloyl chloride-terephthaloyl
 chloride-tetramethylbisphenol F copolymer-poly(ethylene
 terephthalate) blends with, with good processability)

RN 104195-27-9 HCA

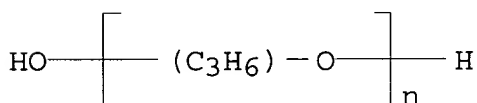
CN Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-,
 ester with 1,2,4-benzenetricarboxylic acid (1:1), disodium salt
 (9CI) (CA INDEX NAME)

CM 1

CRN 25322-69-4

CMF (C3 H6 O)_n H2 O

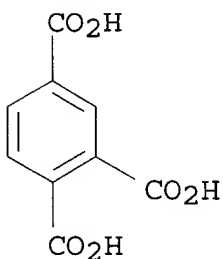
CCI IDS, PMS



CM 2

CRN 528-44-9

CMF C9 H6 O6



IC ICM C08L067-02
ICA C08G063-76
CC 37-6 (Plastics Manufacture and Processing)
IT 70857-18-0 **104195-27-9**
(bisphenol A-isophthaloyl chloride-terephthaloyl
chloride-tetramethylbisphenol F copolymer-poly(ethylene
terephthalate) blends with, with good processability)

L114 ANSWER 26 OF 28 HCA COPYRIGHT 2003 ACS

101:81636 Toner for developing electrostatic images. Inoue, Sukejiro;
Sasakawa, Masumi; Fukumoto, Hiroshi; Doi, Shinji (Canon K. K.,
Japan). Ger. Offen. DE 3329252 A1 19840216, 23 pp. (German).
CODEN: GWXXBX. APPLICATION: DE 1983-3329252 19830812. PRIORITY: JP
1982-140241 19820812.

AB A heat-flexible toner for the development of electrostatic charge
images contains an amorphous polyester (acid no. of 10-100), prepd.
by reaction of a propoxylated or a propoxylated and ethoxylated
diphenol and a benzenedicarboxylic acid or a mixt. of
benzenedicarboxylic acids, and a salicylic acid metal complex at 0.2
to 4.0 wt.%. Thus, a mixt. contg. an ethylene glycol-isophthalic
acid-polyoxypropylene(2.2)-2,2-bis(4-hydroxyphenyl)propaneterephthal
ic acid-trimellitic acid copolymer 100, Magnetite EPT-500 60,
Highwax 220P 4, and Cr 3,5-di-tert-butylsalicylate 1 part was
kneaded, crushed, pulverized, and classified to give toner particles
of 5-20 .mu.m. This toner was then mixed with colloidal SiO2 to
give a developer that was fixable at 50.degree. without any
problems.

IT **91310-16-6 91310-17-7 91310-18-8**
91310-19-9

(electrophotog. heat-fixable toners contg. salicylic acid deriv.
metal complex and amorphous)

RN 91310-16-6 HCA

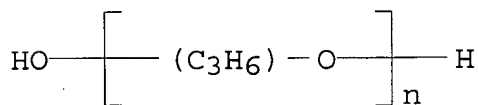
CN 1,2,4-Benzenetricarboxylic acid, polymer with 1,3-
benzenedicarboxylic acid, 1,4-benzenedicarboxylic acid,
.alpha.-hydro-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)] and
4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 25322-69-4

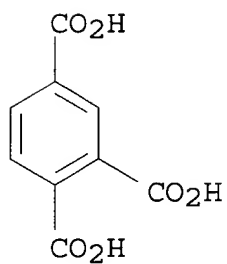
CMF (C3 H6 O)n H2 O

CCI IDS, PMS



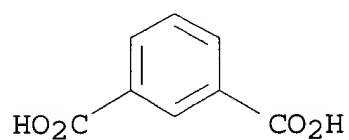
CM 2

CRN 528-44-9
CMF C9 H6 O6



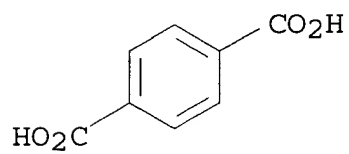
CM 3

CRN 121-91-5
CMF C8 H6 O4



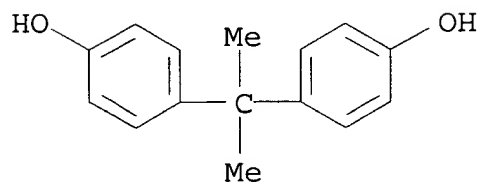
CM 4

CRN 100-21-0
CMF C8 H6 O4



CM 5

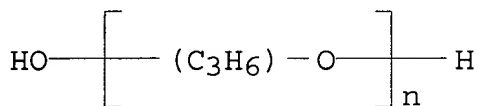
CRN 80-05-7
CMF C15 H16 O2



RN 91310-17-7 HCA
 CN 1,2,4-Benzenetricarboxylic acid, polymer with 1,3-benzenedicarboxylic acid, 1,4-benzenedicarboxylic acid, .alpha.-hydro-.omega.-hydroxypoly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)], 4,4'-(1-methylethylidene)bis[phenol] and 1,2,3-propanetriol (9CI)
 (CA INDEX NAME)

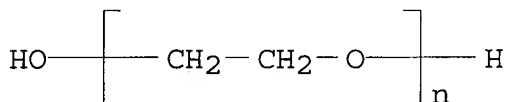
CM 1

CRN 25322-69-4
 CMF (C3 H6 O)_n H2 O
 CCI IDS, PMS



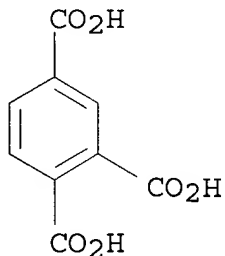
CM 2

CRN 25322-68-3
 CMF (C2 H4 O)_n H2 O
 CCI PMS



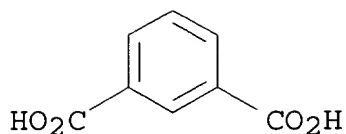
CM 3

CRN 528-44-9
 CMF C9 H6 O6



CM 4

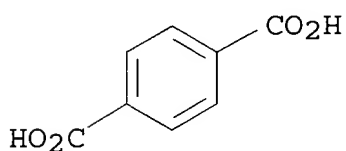
CRN 121-91-5
 CMF C8 H6 O4



CM 5

CRN 100-21-0

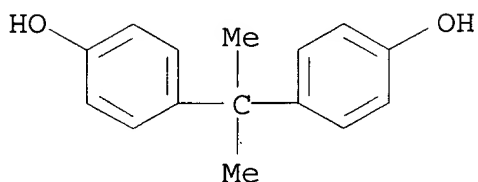
CMF C8 H6 O4



CM 6

CRN 80-05-7

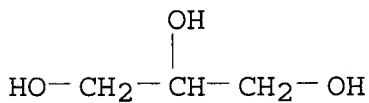
CMF C15 H16 O2



CM 7

CRN 56-81-5

CMF C3 H8 O3



RN 91310-18-8 HCA

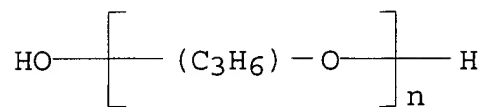
CN 1,2,4-Benzenetricarboxylic acid, polymer with 1,3-benzenedicarboxylic acid, 1,4-benzenedicarboxylic acid, 1,2-ethanediol, .alpha.-hydro-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)] and 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 25322-69-4

CMF (C3 H6 O)_n H2 O

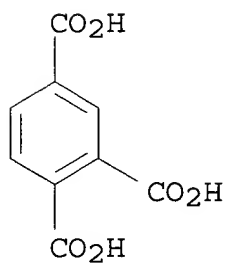
CCI IDS, PMS



CM 2

CRN 528-44-9

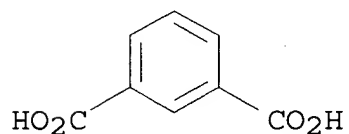
CMF C9 H6 O6



CM 3

CRN 121-91-5

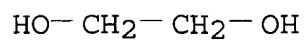
CMF C8 H6 O4



CM 4

CRN 107-21-1

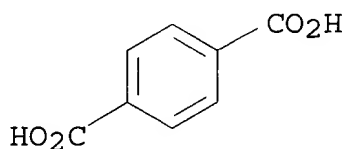
CMF C2 H6 O2



CM 5

CRN 100-21-0

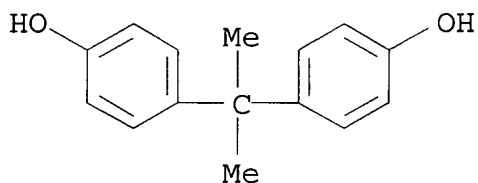
CMF C8 H6 O4



CM 6

CRN 80-05-7

CMF C15 H16 O2



RN 91310-19-9 HCA

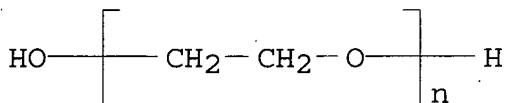
CN 1,2,4-Benzenetricarboxylic acid, polymer with 1,3-benzenedicarboxylic acid, 1,4-benzenedicarboxylic acid, .alpha.-hydro-.omega.-hydroxypoly(oxy-1,2-ethanediyl) and 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 25322-68-3

CMF (C2 H4 O)_n H2 O

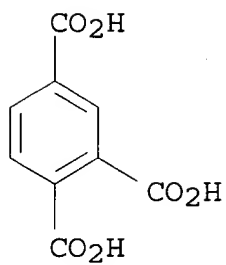
CCI PMS



CM 2

CRN 528-44-9

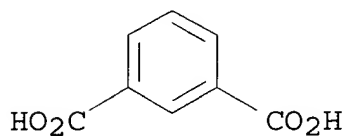
CMF C9 H6 O6



CM 3

CRN 121-91-5

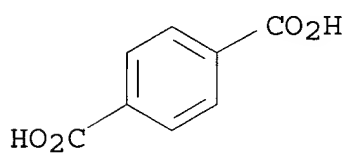
CMF C8 H6 O4



CM 4

CRN 100-21-0

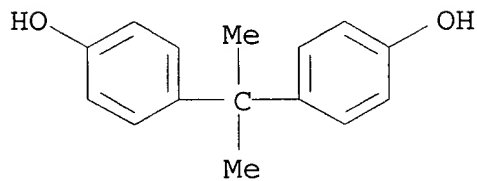
CMF C8 H6 O4



CM 5

CRN 80-05-7

CMF C15 H16 O2



IC G03G009-08

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and

Other Reprographic Processes)

- IT 69-72-7D, **transition metal** complexes
 7439-95-4D, complexes with salicylic acid 7440-02-0D, complexes
 with salicylic acid derivs. 16094-31-8D, cobalt complexes
 16283-36-6 19715-19-6D, **transition metal**
 complexes 42405-40-3
 (electrophotog. heat-fixable toner contg. amorphous polyester
 and)
- IT 91310-16-6 91310-17-7 91310-18-8
 91310-19-9
 (electrophotog. heat-fixable toners contg. salicylic acid deriv.
 metal complex and amorphous)

L114 ANSWER 27 OF 28 HCA COPYRIGHT 2003 ACS

76:86441 Cobaltous catalyst. Lysy, Jan; Hajek, Karel Czech. CS 138742
 19711015, 3 pp. (Czech). CODEN: CZXXA9. APPLICATION: CS
 19690207.

AB Monoester prep'd. by stepwise esterification of glycol with
 dicarboxylic acid is treated with an equimolar amt. of tricarboxylic
 acid and fused with a Co²⁺ salt to give Co tricarboxylate useful as
 polymn. catalyst. Thus, a mixt. of 1 mole maleic anhydride and 1
 mole ethylene glycol is heated 30 min at 60.deg., mixed with 1 mole
 trimellitic anhydride, and heated 1 hr at 190.deg.. The product
 with acid number 455-70 mg KOH/g is fused with 0.5 mole Co(OH)₂ 2 hr
 at 250.deg.. The melt is cooled and ground to give a pink powder
 contg. 7.2% Co.

IT 9052-60-2
 (polymn. catalyst)

RN 9052-60-2 HCA

CN 1,2,4-Benzenetricarboxylic acid, polymer with butanediol and
 hexanedioic acid, cobalt(2+) salt (9CI) (CA INDEX NAME)

CM 1

CRN 50975-80-9

CMF (C9 H6 O6 . C6 H10 O4 . C4 H10 O2)x

CCI PMS

CM 2

CRN 25265-75-2

CMF C4 H10 O2

CCI IDS

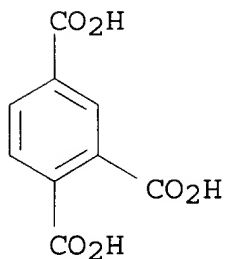
H₃C-CH₂-CH₂-CH₃

2 (D1-OH)

CM 3

CRN 528-44-9

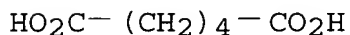
CMF C9 H6 O6



CM 4

CRN 124-04-9

CMF C6 H10 O4



IC B01J

CC 35 (Synthetic High Polymers)

IT **9052-60-2** 35586-63-1 36657-20-2
(polymn. catalyst)

L114 ANSWER 28 OF 28 HCA COPYRIGHT 2003 ACS

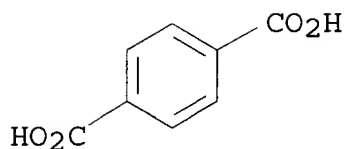
71:123985 Aromatic carboxylic acids. Kesamaru, Toshinobu; Morita, Osamu (Mitsui Petrochemical Industries, Ltd.). Brit. GB 1164187 19690917, 7 pp. (English). CODEN: BRXXAA. APPLICATION: GB 19670622.

AB Aromatic compds. with at least 1 aliphatic substituent oxidizable to a carbonyl group on an aromatic ring are oxidized with molecular O in the liq. phase at 10-50 kg./cm.² and 180-250.degree., and in the presence of 0.001-0.2% by wt. siloxane (liq. under reaction conditions), and 0.02-2.0% catalyst, which is composed of a heavy metal and bromine. The ratio of heavy metal to Br is preferably 0.1-10 g. atoms Br to 1 g. atom metal. p-Xylene is thus oxidized to terephthalic acid. BzOH, isophthalic acid, and trimellitic acids are also prepd.

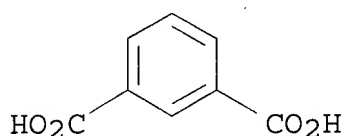
IT **100-21-0P**, preparation
(from benzene alkyl derivs. by oxidn.)

RN 100-21-0 HCA

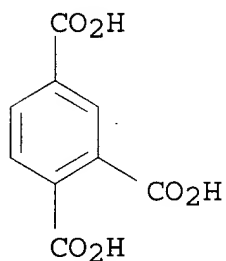
CN 1,4-Benzenedicarboxylic acid (9CI) (CA INDEX NAME)



IT **121-91-5P**, preparation
 (from xylene by oxidn.)
 RN 121-91-5 HCA
 CN 1,3-Benzenedicarboxylic acid (9CI) (CA INDEX NAME)



IT **528-44-9P**
 (prepn. of)
 RN 528-44-9 HCA
 CN 1,2,4-Benzenetricarboxylic acid (8CI, 9CI) (CA INDEX NAME)



IC C07C
 CC 25 (Noncondensed Aromatic Compounds)
 IT **Transition metal compounds**
 (salts, catalysts from bromides and, for oxidn. of benzene alkyl
 derivs.)
 IT 65-85-0P, preparation **100-21-0P**, preparation
 (from benzene alkyl derivs. by oxidn.)
 IT **121-91-5P**, preparation
 (from xylene by oxidn.)
 IT **528-44-9P**
 (prepn. of)

=> d l115 1-36 ti

L115 ANSWER 1 OF 36 HCA COPYRIGHT 2003 ACS

TI Polyester water dispersions for transparent color inks and their
 manufacture without malodor

L115 ANSWER 2 OF 36 HCA COPYRIGHT 2003 ACS

TI Mold release agents having good lubricating property and releasability for die-cast and their manufacture

L115 ANSWER 3 OF 36 HCA COPYRIGHT 2003 ACS

TI Carboxylic acid amide- or imide-containing mold-release agents for die casting processes and their manufacture

L115 ANSWER 4 OF 36 HCA COPYRIGHT 2003 ACS

TI Process for producing fatty acid or aromatic carboxylic acid esters of alcohols and polyols

L115 ANSWER 5 OF 36 HCA COPYRIGHT 2003 ACS

TI Application of zirconium-modified silica gel as a stationary phase in the ion-exclusion chromatography of carboxylic acids. I. Separation of benzenecarboxylic acids with tartaric acid as eluent and with UV-photometric detection

L115 ANSWER 6 OF 36 HCA COPYRIGHT 2003 ACS

TI Synthesis of polycarboxylic acids of cyclohexane series and their derivatives

L115 ANSWER 7 OF 36 HCA COPYRIGHT 2003 ACS

TI Deactivating polycarbonate catalyst residues

L115 ANSWER 8 OF 36 HCA COPYRIGHT 2003 ACS

TI Catalysts and process for producing reduced-haze esters monomers and for the preparation of polyesters with reduced yellowing potential

L115 ANSWER 9 OF 36 HCA COPYRIGHT 2003 ACS

TI Reduction of salt requirements in dyeing cotton with fiber reactive dyes

L115 ANSWER 10 OF 36 HCA COPYRIGHT 2003 ACS

TI Salt substitute for dyeing cotton with fiber reactive dyes

L115 ANSWER 11 OF 36 HCA COPYRIGHT 2003 ACS

TI Optimization of the separation of polycarboxylic acids by capillary zone electrophoresis

L115 ANSWER 12 OF 36 HCA COPYRIGHT 2003 ACS

TI Lubricants containing carboxylic acids for warm and hot forging

L115 ANSWER 13 OF 36 HCA COPYRIGHT 2003 ACS

TI Preparation of naphthalenepolycarboxylic acids

L115 ANSWER 14 OF 36 HCA COPYRIGHT 2003 ACS

TI Hydrocarbyl-substituted polycarboxylic acylating agent for explosive emulsions

L115 ANSWER 15 OF 36 HCA COPYRIGHT 2003 ACS

- TI Preparation of **aromatic dicarboxylic acid** monoesters
- L115 ANSWER 16 OF 36 HCA COPYRIGHT 2003 ACS
TI Method for control or calibration in a chemical analytical determination using dry analysis element and water-insoluble particle-contg. control dispersions
- L115 ANSWER 17 OF 36 HCA COPYRIGHT 2003 ACS
TI Parting agents for die-casting of nonferrous metals
- L115 ANSWER 18 OF 36 HCA COPYRIGHT 2003 ACS
TI Deactivation mechanisms in liquid phase oxidations caused by carboxylic acids
- L115 ANSWER 19 OF 36 HCA COPYRIGHT 2003 ACS
TI Production of polycarboxylic acids with a molybdenum-activated cobalt catalyst
- L115 ANSWER 20 OF 36 HCA COPYRIGHT 2003 ACS
TI Preparation of aromatic carboxylic acids
- L115 ANSWER 21 OF 36 HCA COPYRIGHT 2003 ACS
TI Production process of 2-chloropropanal
- L115 ANSWER 22 OF 36 HCA COPYRIGHT 2003 ACS
TI Gas chromatographic analysis for aromatic carboxylic acids in the presence of C1-C22 fatty acids and C2-C16 dicarboxylic acids esterified in aqueous solutions as the n-propyl esters
- L115 ANSWER 23 OF 36 HCA COPYRIGHT 2003 ACS
TI Benzenepolycarboxylic acid derivatives
- L115 ANSWER 24 OF 36 HCA COPYRIGHT 2003 ACS
TI The influence of the structure of reagents on their effectiveness as dispersants for cassiterite suspensions
- L115 ANSWER 25 OF 36 HCA COPYRIGHT 2003 ACS
TI Effect of pH and added salts on the adsorption of ionizable organic species onto activated carbon from aqueous solution
- L115 ANSWER 26 OF 36 HCA COPYRIGHT 2003 ACS
TI Preparation of polyamides
- L115 ANSWER 27 OF 36 HCA COPYRIGHT 2003 ACS
TI Organic acids
- L115 ANSWER 28 OF 36 HCA COPYRIGHT 2003 ACS
TI A fast preparative method for the gas chromatography of polycarboxylic acids in aqueous and salt solutions
- L115 ANSWER 29 OF 36 HCA COPYRIGHT 2003 ACS

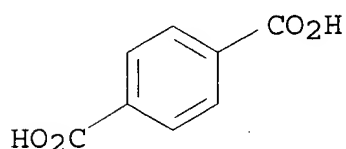
- TI Oxidation of coals in liquid phases. III. Separation of sodium oxalate from the oxidation products of Yallourn coal with oxygen
- L115 ANSWER 30 OF 36 HCA COPYRIGHT 2003 ACS
TI Benzenecarboxylic acids
- L115 ANSWER 31 OF 36 HCA COPYRIGHT 2003 ACS
TI Preparation of benzenepolycarboxylic acids from high-molecular-weight petroleum-based compounds
- L115 ANSWER 32 OF 36 HCA COPYRIGHT 2003 ACS
TI Waste liquor treatment in carboxylate ester manufacture
- L115 ANSWER 33 OF 36 HCA COPYRIGHT 2003 ACS
TI Liquid-phase oxidation of poly(methylbenzenes) on a cobalt acetate-sodium bromide catalyst
- L115 ANSWER 34 OF 36 HCA COPYRIGHT 2003 ACS
TI Crystallization of polycarbonates
- L115 ANSWER 35 OF 36 HCA COPYRIGHT 2003 ACS
TI Effect of the nature and concentration of the cation of a supporting electrolyte on polarographic kinetic currents of benzenepolycarboxylic acids
- L115 ANSWER 36 OF 36 HCA COPYRIGHT 2003 ACS
TI The course of potassium phthalate rearrangement to potassium terephthalate

=> d l115 1,2,3,12,17 cbib abs hitstr hitind

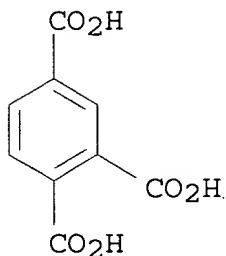
- L115 ANSWER 1 OF 36 HCA COPYRIGHT 2003 ACS
138:74849 Polyester water dispersions for transparent color inks and their manufacture without malodor. Arichi, Minako; Maeda, Satoshi (Toyobo Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2003003049 A2 20030108, 14 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-187011 20010620.
- AB The water dispersions contain polyesters which have acid value 20-5000 meq/kg, are prepd. from polycarboxylic acids and polyhydric alcs., and are finely dispersed in the presence of .gtoreq.1 compds. selected from substantially water-sol. compds. represented by $R_1R_2NRCO_2M$, $R_1R_2R_3N+RCO_2^-$, and $R_1R_2NC(O)NR_3R_4$ ($R_1-R_4 = H$, C1-5 hydrocarbyl, acyl which may be substituted with amino group; $R = C1-5$ alkylene whose substituent may be branched; $M = H$, **alkali metal, alk. earth metal**), amino acids, or amino acid salts. The dispersions have good film properties, low viscosity and high surface tension, high pH stability in alkalis, and no malodor problem on prodn. Thus, 200 parts 96:20:80:4 (mol%) cyclohexanedicarboxylic acid-ethylene glycol-tricyclodecanedimethanol copolymer trimellitate with Tg 63.degree., Mn 2800, and CO₂H value 408 in 100:50 MEK-THF mixt. was

neutralized with acid/base equiv. amt. of L-arginine (I), dispersed in water, distd., cooled, and mixed with water to give a 25%-solid water dispersion free from malodor. After adjusting the pH of the dispersion with I to 9.0 \pm 0.1, followed with keeping at 70.degree. for 200 h, the dispersion had particle diam. 0.25 μ m, viscosity 2.55 mPa-s, surface tension 57 dyn/cm, pH 8.75, and no pptn. nor coagulation. The polyester (200 parts) was dissolved in a 100:50 MEK-THF mixt. together with 40 parts Macrolex Yellow 3G (dye), neutralized with I, dispersed in water, distd., cooled, and mixed with water to give a 20%-solid color polyester water dispersion with av. particle diam. 0.42 μ m for an anticlogging ink-jet ink.

IT **100-21-0DP**, Terephthalic acid, copolymer with dicarboxylic acids and glycols, trimellitate, N,N-dimethylglycine salt
528-44-9DP, Trimellitic acid, ester with alicyclic polyesters, salts
 (malodor-free prepn. of high-concn., low-viscosity polyester water dispersions for transparent color inks)
 RN 100-21-0 HCA
 CN 1,4-Benzenedicarboxylic acid (9CI) (CA INDEX NAME)



RN 528-44-9 HCA
 CN 1,2,4-Benzenetricarboxylic acid (8CI, 9CI) (CA INDEX NAME)



IC ICM C08L067-00
 ICS C08K005-205; C08K005-21
 CC 42-12 (Coatings, Inks, and Related Products)
 IT 57-13-6DP, Urea, salt with aliph. polyester trimellitate
 57-55-6DP, Propylene glycol, copolymer with dicarboxylic acids and glycols, trimellitate, urea salt **100-21-0DP**, Terephthalic acid, copolymer with dicarboxylic acids and glycols, trimellitate, N,N-dimethylglycine salt 107-21-1DP, Ethylene glycol, copolymer with dicarboxylic acids and glycols, trimellitate, N,N-dimethylglycine salt 107-43-7DP, N,N,N-Trimethylglycine, salt with aliph. polyester trimellitate 126-30-7DP, Neopentyl glycol,

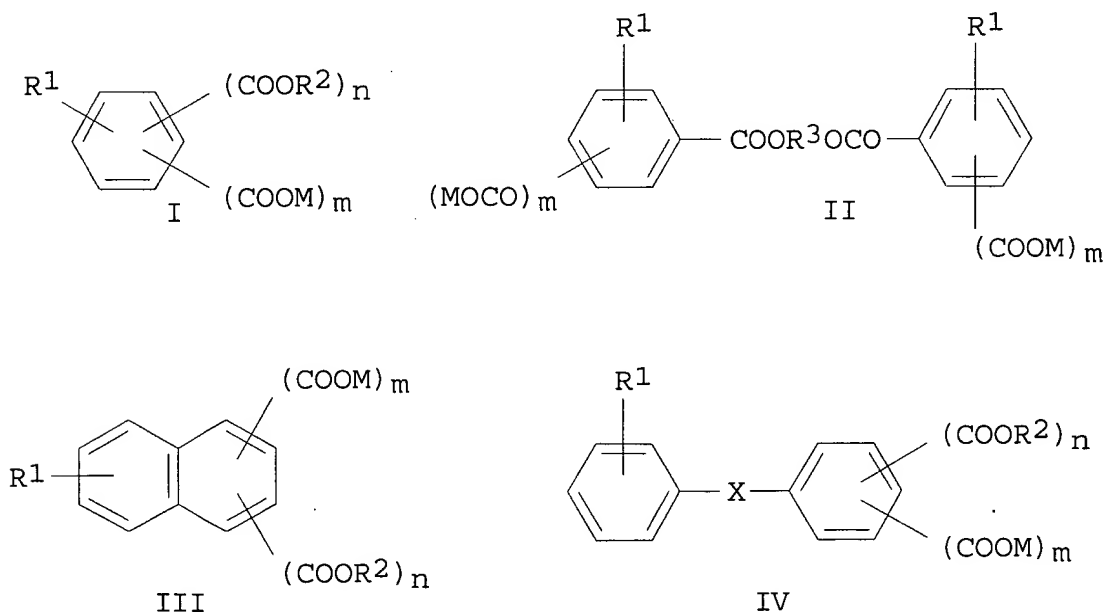
copolymer with dicarboxylic acids and glycols, trimellitate, N,N-dimethylglycine salt **528-44-9DP**, Trimellitic acid, ester with alicyclic polyesters, salts 1118-68-9DP, N,N-Dimethylglycine, salt with aliph. polyester trimellitate 26160-83-8DP, Tricyclodecanedimethanol, copolymer with dicarboxylic acids and glycols, trimellitate, urea salt 28553-75-5DP, Cyclohexanediol, copolymer with dicarboxylic acids and glycols, trimellitate, N,N,N-trimethylglycine salt 31290-91-2DP, Cyclohexanedicarboxylic acid, copolymer with dicarboxylic acids and glycols, trimellitate, urea salt 482371-38-0P, Dimethyl isophthalate-dimethyl terephthalate-ethylene glycol-neopentyl glycol copolymer trimellitate L-arginine salt 482371-41-5P, Cyclohexanedicarboxylic acid-ethylene glycol-tricyclodecanedimethanol copolymer trimellitate L-arginine salt 482371-44-8P, Cyclohexanedicarboxylic acid-propylene glycol-tricyclodecanedimethanol copolymer trimellitate L-arginine salt

(malodor-free prepn. of high-concn., low-viscosity polyester water dispersions for transparent color inks)

L115 ANSWER 2 OF 36 HCA COPYRIGHT 2003 ACS

137:112695 Mold release agents having good lubricating property and releasability for die-cast and their manufacture. Maeda, Yasuyuki; Makino, Kimihiro (Nikka Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002205139 A2 20020723, 12 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-403093 20001228.

GI



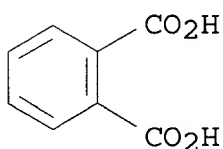
AB The release agents comprise arom. carboxylic acid ester salts of I

[R1 = H, OH, C1-10 alkyl; R2 = alkyl, mono- or polyoxyalkylene alkyl, aryl, or aralkyl ether group; M = **alkali metal**, (un)substituted ammonium group; m, n = 1-3; m + n = 2-5], II [R1, M, m = same as I; R3 = C2-8 alkylene], III [R1, R2, M = same as I; m, n = 1-3; m + n = 2-6], or IV [R1, R2, M, = same as I; m, n = 1-3; m + n = 2-6; X = single bond, O, SO₂, NH]. Arom. carboxylic acid salts are manufd. by esterification of .gtoreq.2 carboxyl-contg. arom. compds. with 1-4 OH-contg. compds. and neutralization. Most of the agents in waste water are removable by agglutination-pptn.

IT 88-99-3, Phthalic acid, reactions 100-21-0, Terephthalic acid, reactions 121-91-5, Isophthalic acid, reactions 528-44-9, Trimellitic acid
(mold release agents having good lubricating property and releasability for die-cast and their manuf.)

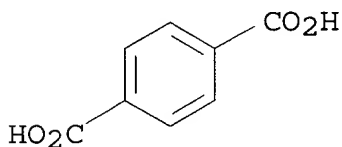
RN 88-99-3 HCA

CN 1,2-Benzenedicarboxylic acid (9CI) (CA INDEX NAME)



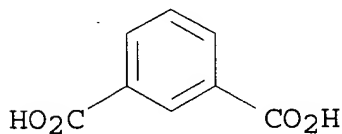
RN 100-21-0 HCA

CN 1,4-Benzenedicarboxylic acid (9CI) (CA INDEX NAME)



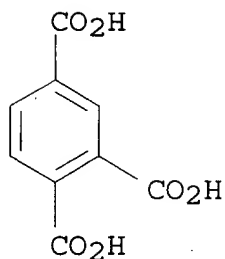
RN 121-91-5 HCA

CN 1,3-Benzenedicarboxylic acid (9CI) (CA INDEX NAME)



RN 528-44-9 HCA

CN 1,2,4-Benzenetricarboxylic acid (8CI, 9CI) (CA INDEX NAME)

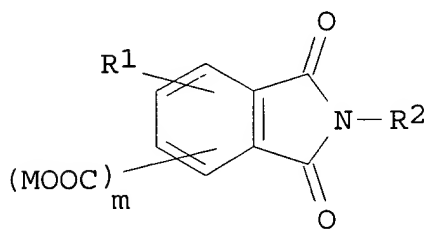


IC ICM B22C003-00
 ICS B22D017-20; B29C033-60
 CC 56-2 (Nonferrous Metals and Alloys)
 IT **88-99-3**, Phthalic acid, reactions 89-05-4, Pyromellitic acid **100-21-0**, Terephthalic acid, reactions 107-21-1, Ethylene glycol, reactions 110-63-4, 1,4-Butanediol, reactions 112-53-8, Lauryl alcohol 112-72-1, Myristyl alcohol 112-92-5, Stearyl alcohol **121-91-5**, Isophthalic acid, reactions 143-28-2, Oleyl alcohol 518-05-8, Naphthalene-1,8-dicarboxylic acid **528-44-9**, Trimellitic acid 605-70-9, Naphthalene-1,4-dicarboxylic acid 1141-38-4, Naphthalene-2,6-dicarboxylic acid 10595-31-0 36653-82-4, Cetyl alcohol 74790-93-5 443678-69-1
 (mold release agents having good lubricating property and releasability for die-cast and their manuf.)

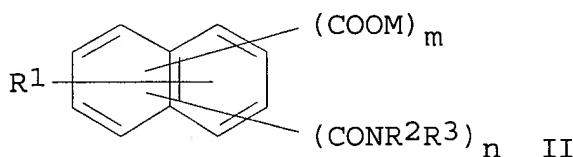
L115 ANSWER 3 OF 36 HCA COPYRIGHT 2003 ACS

137:97184 Carboxylic acid amide- or imide-containing mold-release agents for die casting processes and their manufacture. Maeda, Yasuyuki; Makino, Kimihiro (Nikka Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002200621 A2 20020716, 11 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-403094 20001228.

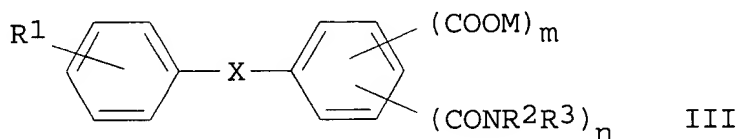
GI



I



II



III

AB The agents contain carboxylic acid amides or carboxylic acid imides of $R_1C_6H_5-m-n(CO_2M)_m(CONR_2R_3)_n$ ($R_1 = H, OH, C_1-10$ alkyl; $R_2 =$ alkyl; $R_3 = H, \text{alkyl}$; $M = \text{alkali metal}$, (un)substituted ammonium; $m, n = 1-3$; $m + n = 2-5$), I, II ($m + n = 2-6$) [$R_1C_6H_4-m(CO_2M)_mCONH]_2R_4$ ($R_4 = C_2-8$ alkylene) or III ($X =$ single bond, O, SO_2 , NH; $m + n = 2-6$; groups R_1 , CO_2M , and $CONR_2R_3$ are bonded to any C on either benzene rings). Manuf. of the agents by amidation or imidation of arom. compd. (derivs.) having .gtoreq.2 carboxyl groups with amines followed by neutralization is also claimed. The agents show excellent lubricity and seizure of die cast molds are prevented.

IT 442157-75-7P 442157-76-8P 442157-77-9P
442157-78-0P 442157-79-1P

(manuf. of amide- or imide-contg. carboxylic acid salts as mold-release agents for die casting processes)

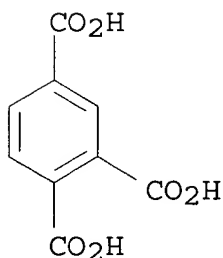
RN 442157-75-7 HCA

CN Benzenedicarboxylic acid, 2(or 4)-[(dodecylamino)carbonyl]-, disodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 528-44-9

CMF C9 H6 O6



CM 2

CRN 124-22-1

CMF C12 H27 N

$H_2N-(CH_2)_{11}-Me$

RN 442157-76-8 HCA

CN Benzenedicarboxylic acid, 2(or 4)-[(tetradecylamino)carbonyl]-, disodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 2016-42-4

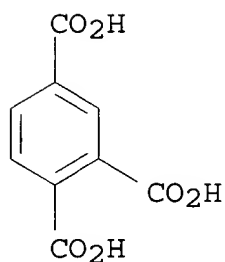
CMF C14 H31 N

 $\text{H}_2\text{N}-(\text{CH}_2)_{13}-\text{Me}$

CM 2

CRN 528-44-9

CMF C9 H6 O6



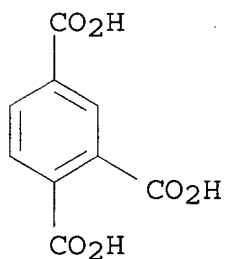
RN 442157-77-9 HCA

CN Benzenedicarboxylic acid, 2(or 4)-[(hexadecylamino)carbonyl]-,
disodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 528-44-9

CMF C9 H6 O6



CM 2

CRN 143-27-1

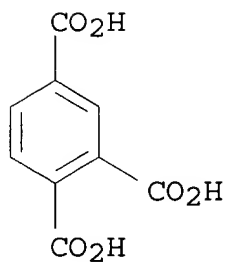
CMF C16 H35 N

 $\text{H}_2\text{N}-(\text{CH}_2)_{15}-\text{Me}$

RN 442157-78-0 HCA

CN Benzenedicarboxylic acid, 2(or 4)-[(octadecylamino)carbonyl]-,
disodium salt (9CI) (CA INDEX NAME)

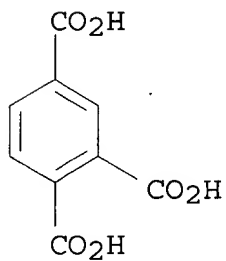
CM 1

CRN 528-44-9
CMF C9 H6 O6

CM 2

CRN 124-30-1
CMF C18 H39 N $\text{H}_2\text{N}-(\text{CH}_2)_{17}-\text{Me}$ RN 442157-79-1 HCA
CN Benzenedicarboxylic acid, 2(or 4)-[[(9Z)-9-octadecenylamino]carbonyl]-, disodium salt (9CI) (CA INDEX NAME)

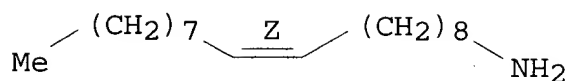
CM 1

CRN 528-44-9
CMF C9 H6 O6

CM 2

CRN 112-90-3
CMF C18 H37 N

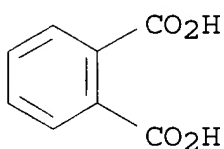
Double bond geometry as shown.



IT 88-99-3, Phthalic acid, reactions 100-21-0,
Terephthalic acid, reactions 121-91-5, Isophthalic acid,
reactions 528-44-9, Trimellitic acid
(manuf. of amide- or imide-contg. carboxylic acid salts as
mold-release agents for die casting processes)

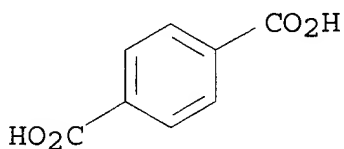
RN 88-99-3 HCA

CN 1,2-Benzenedicarboxylic acid (9CI) (CA INDEX NAME)



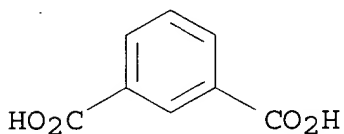
RN 100-21-0 HCA

CN 1,4-Benzenedicarboxylic acid (9CI) (CA INDEX NAME)



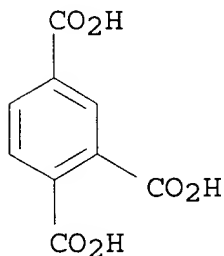
RN 121-91-5 HCA

CN 1,3-Benzenedicarboxylic acid (9CI) (CA INDEX NAME)



RN 528-44-9 HCA

CN 1,2,4-Benzenetricarboxylic acid (8CI, 9CI) (CA INDEX NAME)



IC ICM B29C033-60
ICS B22C003-00; B22D017-20

CC 56-2 (Nonferrous Metals and Alloys)
Section cross-reference(s): 55

IT 52644-67-4P 86432-21-5P 86432-23-7P 94135-12-3P 135405-48-0P
441756-09-8P 441756-10-1P 441756-11-2P 441756-12-3P
441756-13-4P 441756-14-5P 441756-15-6P 441756-16-7P
441756-17-8P 442156-87-8P 442156-89-0P 442156-97-0P
442157-75-7P 442157-76-8P 442157-77-9P
442157-78-0P 442157-79-1P
(manuf. of amide- or imide-contg. carboxylic acid salts as
mold-release agents for die casting processes)

IT 81-84-5, Naphthalene-1,8-dicarboxylic acid anhydride 85-44-9,
Phthalic anhydride **88-99-3**, Phthalic acid, reactions
89-05-4, Pyromellitic acid **100-21-0**, Terephthalic acid,
reactions 107-15-3, Ethylenediamine, reactions 111-86-4,
Octylamine 111-92-2, Dibutylamine 112-90-3, Oleylamine
121-91-5, Isophthalic acid, reactions 124-22-1,
Laurylamine 124-30-1, Stearylamine 143-27-1, Cetylamine
518-05-8, Naphthalene-1,8-dicarboxylic acid **528-44-9**,
Trimellitic acid 552-30-7, Trimellitic anhydride 605-70-9,
Naphthalene-1,4-dicarboxylic acid 1141-38-4, Naphthalene-2,6-
dicarboxylic acid 2016-42-4, Myristylamine 2420-87-3,
3,3',4,4'-Biphenyltetracarboxylic acid dianhydride 6050-13-1,
Diphenic acid anhydride 10595-31-0, Diphenyl sulfone-3,3',4,4'-
tetracarboxylic acid 27550-59-0, 4-Hydroxyphthalic anhydride
32703-79-0, 4-tert-Butylphthalic anhydride
(manuf. of amide- or imide-contg. carboxylic acid salts as
mold-release agents for die casting processes)

L115 ANSWER 12 OF 36 HCA COPYRIGHT 2003 ACS

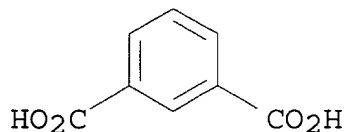
125:173086 Lubricants containing carboxylic acids for warm and hot
forging. Fujimaki, Hiroshi; Yamanaka, Yasuhiko (Yushiro Chem Ind,
Japan). Jpn. Kokai Tokkyo Koho JP 08157860 A2 19960618 Heisei, 5
pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1994-323980
19941202.

AB The lubricants contain (a) **alkali metal** salts or
alk. earth salts of trimellitic acid, (b) **alkali**
metal salts and/or alk. earth salts of adipic acid or
phthalic acid, (c) **alkali metal** salts or
alk. earth salts of olefin-maleic anhydride copolymer, (d)
water, and optionally (e) alkanolamine salts of boric acid or boric
anhydride. The lubricants have high lubricity, mold-releasing
properties, and cooling properties.

IT **25458-19-9**, Sodium isophthalate **51305-33-0**, Sodium
trimellitate
(lubricants contg. carboxylic acids for warm and hot forging with
mold-releasing properties)

RN 25458-19-9 HCA

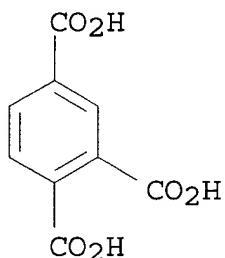
CN 1,3-Benzenedicarboxylic acid, sodium salt (9CI) (CA INDEX NAME)



⊗x Na

RN 51305-33-0 HCA

CN 1,2,4-Benzenetricarboxylic acid, sodium salt (9CI) (CA INDEX NAME)



⊗x Na

IC ICM C10M173-02

ICI C10M173-02, C10M105-30, C10M105-26, C10M145-16, C10M139-00;
C10N010-02, C10N030-00, C10N030-06, C10N040-24

CC 51-8 (Fossil Fuels, Derivatives, and Related Products)
Section cross-reference(s): 55

ST lubricant carboxylic acid hot forging; **alkali metal** salt lubricant forging; alk earth salt lubricant forging; trimellitic acid lubricant hot forging; adipic acid lubricant hot forging; phthalic acid lubricant hot forging; olefin maleic anhydride copolymer lubricant; alkanolamine borate lubricant hot forging

IT 23311-84-4, Adipic acid sodium salt **25458-19-9**, Sodium isophthalate **51305-33-0**, Sodium trimellitate 67952-33-4
(lubricants contg. carboxylic acids for warm and hot forging with mold-releasing properties)

L115 ANSWER 17 OF 36 HCA COPYRIGHT 2003 ACS

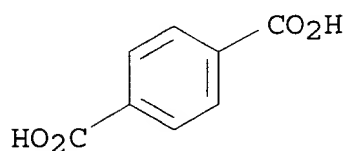
118:10321 Parting agents for die-casting of nonferrous metals. Kojika, Noboru; Takao, Masanori; Uemori, Shigeki (Yushiro Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 04238643 A2 19920826 Heisei, 4 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1990-418532 19901228.

AB Parting agents for die-casting of Al, Al alloys, Mg, Mg alloys, and Zn alloys contain Si and polybasic acid salts, esp. salts of **alkali metals** and **alk. earth metals**. The castings have good surface quality. Thus, a parting agent contg. Na isophthalate and dimethylsilane was used for die-casting of Al.

IT 15596-76-6, Sodium terephthalate 25458-19-9, Sodium isophthalate 51305-33-0, Sodium trimellitate (parting agents contg., for die-casting of nonferrous metals)

RN 15596-76-6 HCA

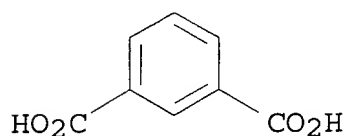
CN 1,4-Benzenedicarboxylic acid, sodium salt (9CI) (CA INDEX NAME)



●x Na

RN 25458-19-9 HCA

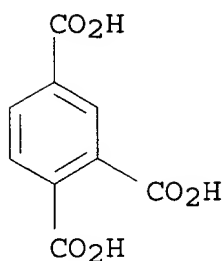
CN 1,3-Benzenedicarboxylic acid, sodium salt (9CI) (CA INDEX NAME)



●x Na

RN 51305-33-0 HCA

CN 1,2,4-Benzenetricarboxylic acid, sodium salt (9CI) (CA INDEX NAME)



⊕x Na

IC ICM B22C003-00
ICS B22D017-20
CC 56-2 (Nonferrous Metals and Alloys)
ST die casting nonferrous metal; parting agent die casting; **alk**
earth **metal** salt; **alkali metal** salt
parting agent; aluminum die casting parting agent; magnesium die
casting parting agent; zinc die casting parting agent;
dimethylsilane parting agent die casting; sodium isophthalate
parting agent casting
IT **Alkali metals**, compounds
Alkaline earth compounds
(salts, of polybasic acids, parting agents contg., for
die-casting of nonferrous metals)
IT 1111-74-6, Dimethylsilane 7440-21-3, Silicon, uses
15596-76-6, Sodium terephthalate 23311-84-4, Sodium
adipate **25458-19-9**, Sodium isophthalate **51305-33-0**
, Sodium trimellitate
(parting agents contg., for die-casting of nonferrous metals)